The Dissertation Committee for Adryon Lindy Burton Denmark certifies that this is the approved version of the following dissertation:

Why do Suicidal Students Avoid Seeking Help? College Students' Self-reported Reasons for Concealing Suicide Ideation and Their Relationship to Attempting Suicide

Committee:

David Drum, Co-supervisor

Stephanie Rude, Co-supervisor

Chris Brownson

Keenan Pituch

Aaron Rochlen

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Adryon Lindy Burton Denmark, B.A.; M.A.

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Why do Suicidal Students Avoid Seeking Help? College Students' Self-reported Reasons for Concealing Suicide Ideation and Their Relationship to Attempting Suicide

Adryon Lindy Burton Denmark, Ph.D.

The University of Texas at Austin, 2011

Supervisors: David Drum; Stephanie Rude

As the second leading cause of death among college students, suicide has become an increasingly prominent focus for campus mental health initiatives. Suicide prevention efforts frequently rely on the induction of students with suicidal ideation into counseling services, either through self-referral or referrals from friends, family members, and university staff. However, nearly half of students who seriously contemplate taking their lives do not tell anyone that they are struggling with suicidal thoughts. Concealment of suicidal ideation, particularly from one's informal support network, is not well understood, and no studies to date have examined this phenomenon among college students. Using archival data from a national survey of suicidal crises among college students collected in 2006 by The National Research Consortium of Counseling Centers in Higher Education, this study explored college students' self-reported reasons for concealing their suicidal ideation.

Content analysis was used to categorize students' qualitative responses to an open-ended question asking why they chose not to tell anyone about their suicidal thoughts. Nine primary themes emerged from this inquiry: (1) perceived lack of need for help, (2) concern for the well being of others, (3) dispositional orientation towards privacy, (4) perceived pointlessness of seeking help, (5) anticipated negative reactions from others, (6) internal negative evaluation of suicidality, (7) fear of repercussions, (8) avoidance of interference from others, and (9) perception of having no one to tell. Multilevel modeling was then used to explore associations between demographic characteristics, reasons for concealment endorsed, and likelihood of attempting suicide within the 12-month period under study. Findings from this study contribute to an understanding of help avoidance among suicidal individuals and have implications for campus suicide prevention programming.

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Chapter One: Introduction

The problem of college student suicide compels national attention as well as the concern of all stakeholders in higher education. Suicide is the second leading cause of death among college students, following accidental injury, and is the primary cause of death among college women (Anderson & Smith, 2003; Suicide Prevention Resource Center [SPRC], 2004). Rates of completed suicide among college students nationwide are estimated at 6.5 per 100,000 (Schwartz, 2006b). However, the problem of college student suicide extends far beyond the rates of suicide completion. For every student that dies by suicide, countless others struggle with serious suicidal ideation and suicidal behaviors that place them at risk for suicide completion later in life (Joiner, Conwell, Fitzpatrick, Witte, Schmidt, Berlim et al., 2005)

Recognizing the severity of this problem, the U.S. House of Representatives passed the Garrett Lee Smith Memorial Act (2004), allocating $82 million to be spent over three years as part of the Campus Suicide Prevention program (Westefeld, Homaifar, Spotts, Furr, Range, & Werth, 2005). Recent high-profile campus suicides, such as the death of MIT student Elizabeth Shin (Rawe & Kingsbury, 2006), and the ensuing media coverage have resulted in a dramatic increase in both the degree of public attention and the level of funding provided for the implementation of institutional suicide prevention efforts. However, colleges and universities may fail to use these resources effectively due to lack of information regarding help seeking among college students who experience suicidal thoughts and behaviors.

Current approaches to college suicide prevention rely primarily on the induction of suicidal students into campus mental health services, either through self-referral or referrals from "gatekeepers" such as resident advisors and deans (Deane & Chamberlain, 1994; Joiner & Rudd, 1996a; Rudd & Joiner, 1998; Schwartz & Whitaker, 1990). However, nearly 80% of students who complete suicide never receive services at their campus counseling center (Gallagher, 2004; Kisch, Leino, & Silverman, 2005; Schwartz, 2006b). Furthermore, the majority of college students are not aware of the mental health services offered by their school (King, Vidourek, & Strader, 2008; Westefeld et al., 2005). Successful suicide prevention efforts must therefore expand in scope to include both improved outreach and alternative pathways to help, such as through changing the norms and behaviors of peer networks.

A growing body of research indicates that suicidal individuals, both in the general population and in college, tend to avoid seeking professional help (Barnes, Ikeda, & Kresnow, 2001; Carlton & Deane, 2000; Deane & Todd, 1996; Deane, Wilson, & Ciarrochi, 2001; Rudd, Joiner, & Rajab, 1995). It is crucial that colleges and universities improve their understanding of students' help seeking and the barriers to help that exist for suicidal students. To meet these aims, researchers must explore students' subjective experiences of suicidality and attitudes towards seeking help from both formal and informal sources. Suicidal young adults have been found to prefer informal sources of support to formal help sources (Cauce, Domenech-Rodríguez, Paradise, Cochran, Shea, & Srebnik, 2002; De Leo, Cerin, Spathonis, & Burgis, 2005; Molock, Barksdale, Matlin, Puri, Cammack, & Spann, 2007; Nada-Raja, Morrison, & Skegg, 2003). Therefore,

research regarding help seeking must expand to include patterns of self-disclosure of suicidal thoughts to peers, family members and other naturally existing confidants.

Disclosing distressing emotions and thoughts to informal confidants provides valuable emotional and social support benefits (Pennebaker, 1988; Pennebaker, Barger, & Tiebout, 1989), and suicidal individuals who confide in their peers generally perceive this experience to be helpful (Dubow, Lovko, & Kausch, 1990; Gould, Velting, Kleinman, Lucas, Thomas, & Chung, 2004; Nada-Raja et al., 2003). Therefore, increasing rates of disclosure to informal sources of support may be important for reducing the levels of distress experienced by suicidal students. Furthermore, expressing suicidal thoughts to non-professionals may act as a first step to seeking professional help (Cepeda-Benito & Short, 1998; Howard, Cornille, Lyons, & Vessey, 1996; Saunders, Resnick, Hoberman, & Blum, 1994). Given these benefits of disclosure, it is unfortunate that many suicidal young adults do not tell anyone about their suicidal thoughts (Barnes et al., 2001; Drum, Brownson, Burton Denmark & Smith, 2009; Gair & Camilleri, 2003), thereby missing opportunities for emotional relief, increased support, and referrals to professional mental health resources.

Students' concealment of their struggles with suicidal thinking from members of their informal support network is likely related to the concept of *self-concealment* (Larson & Chastain, 1990), which refers to an individual's tendency to actively hide distressing or negative personal information from others. Self-concealment is considered to be a stable personality orientation towards secretiveness regarding personal matters, and has been associated with increased psychological distress and reduced formal help

seeking (Cepeda-Benito & Short, 1998; Kawamura & Frost, 2004; Kelly & Achter, 1995). The act of concealing important personal information appears to intensify emotional distress while simultaneously inhibiting an individual from accessing social resources to relieve his or her distress.

It is therefore important to understand the factors that motivate students to conceal their suicide ideation. Two recent studies have explored reasons for avoiding both formal and informal help endorsed by American Indian youth with suicide ideation (Freedenthal & Stiffman, 2007) and self-harming young adults in New Zealand (Nada-Raja et al., 2003). These studies found that attitudinal barriers to help seeking, such as concern about the stigma attached to having mental health problems or the belief that one should be able to solve problems independently of external help, were the most frequently mentioned reasons for avoiding help. No research to date has explored college students' motivations for avoiding informal help when they experience suicidal thoughts.

The goal of the present study is to remedy this lack of knowledge through a qualitative exploration of students' self-reported reasons for concealing their struggles with suicidal thinking during a time when they seriously contemplated attempting suicide. Quantitative methods are used to further elucidate the poorly understood phenomenon of concealment, by examining whether motivations for concealment vary among different groups of students and whether they predict the likelihood of making a suicide attempt. This information will contribute to an improved understanding of the help seeking process among suicidal students and may inform more effective campus-wide prevention programming and outreach efforts.

The study findings will have implications both for increasing help seeking by students in distress and for enhancing social connectedness on college campuses, which has been promoted as a key strategy for decreasing suicidality (The Jed Foundation, 2010; Suicide Prevention Resource Center [SPRC], 2004; U.S. Department of Health and Human Services, Centers for Disease Control and Prevention [CDC], 2008). While self-inflicted death is a tragedy at any stage in life, the death of a college student invariably sends shockwaves of grief and confusion throughout the campus community. Fortunately, in addition to the numerous stressors facing students, college also offers a uniquely protective environment with significant resources dedicated to student health and well-being. For mental health professionals, university environments offer opportunities to develop, implement, and evaluate innovative population-based prevention initiatives. With guiding knowledge, it will be possible to reduce the numbers of students who develop suicidal ideation and to strengthen the safety net for those who do contemplate ending their lives.

Chapter Two: Literature Review

College Student Suicide Rates

Completed suicide is a relatively low incidence event in the population and is extremely variable across time, institutions, and geographic regions. This fact alone makes accurate assessment of campus suicide rates difficult, and this task is further confounded by methodological issues such as the misclassification of suicides as accidental deaths and misleading reporting procedures (McIntosh, 2002). Frequently, colleges underreport suicides by 25% to 50% by failing to account for suicides committed while the student is off campus, during the summer or winter holidays, or shortly after the student drops out, is expelled, or is sent home on medical leave (Rudd, 1989; Silverman, 1993; Silverman, Meyer, Sloane, Raffel, & Pratt, 1997). The failure to include those who have recently dropped out of school is particularly problematic, as leaving school prematurely is associated with up to a 50% increase in suicide risk (Haas, Hendin & Mann, 2003).

These methodological problems have resulted in such widely varying estimates of suicide rates that, after reviewing the existing literature, Lipschitz (1990) concluded that the rate of college student suicide falls between 5 and 50 per 100,000. However, researchers have recently concurred that the most accurate estimation of completed suicide among college students is between 6.5 and 7.5 per 100,000, or approximately half the rate of the gender and age-matched non-student cohort (Schwartz, 2006b; Silverman et al., 1997). The protective benefits for college students may include access to affordable

health services, student support services, alcohol monitoring, and most importantly, limited access to firearms (Haas et al., 2003; Schwartz, 2006c; Schwartz & Whitaker, 1990; Silverman, 2005). Schwartz (2006c) presents compelling evidence that campus bans on firearms almost entirely account for the reduced rate of completed suicide among college students. Despite these protections, the rate of college student suicide continues to draw the concern of administrators, health service providers, and researchers. Furthermore, protections associated with being a student appear to be specific to suicide completion, and do not generalize to protections against developing suicidal thoughts or engaging in suicidal behaviors.

College Student Suicidality

Nomenclature of suicide-related terms.

The term *suicidality* refers to a variety of experiences across the continuum of suicide-related desires, thoughts, plans and behaviors. Although some authors use the term to include completed suicide, it will be used throughout this study to refer only to suicide ideation or behaviors leading up to and inclusive of suicide attempts without completion (Freedenthal, 2006; L. O'Donnell, C. O'Donnell, Wardlaw, & Stueve, 2004). Suicide ideation has also been defined in different ways, with some definitions encompassing passive death wishes, attitudes about suicide, and plans for committing suicide (Bagley, 1975; Beck, Kovacs, & Weissman, 1979; McAuliffe, 2002).

For the purposes of this study, suicide ideation will be defined as self-reported thoughts of engaging in suicide-related behavior, following the nomenclature proposed

by O'Carroll, Berman, Maris, and Moscicki, (1996) and revised by Silverman, Berman, Sanddal, O'Carroll, and Joiner (2007a, 2007b). The revised nomenclature elaborates upon the various sub-types of suicidal thoughts and behaviors, drawing distinctions based on the presence of intent and/or injury. The sub-section of the nomenclature referring to suicide-related thoughts and behaviors is presented in Table 2.1. It is important to note that these thoughts and behaviors may occur either with or without intent to die, and only a small percentage of ideators report serious suicidal intent (King, 1997; McAuliffe, 2002). It is therefore both challenging and vital to enhance clinical knowledge regarding which individuals with suicide ideation are most likely to attempt suicide.

Table 2.1
Suicide-Related Thoughts and Behaviors

Suicide-Related Ideations
Suicide-Related Communications
Suicide–Related Behaviors
Self-Harm (no intent)
Self-Harm, Type I (no injury)
Self-Harm, Type II (injury)
Self-Inflicted Unintentional Death (fatal outcome)
Undetermined Suicide-Related Behavior (undetermined degree of suicidal intent)
Undetermined Suicide-Related Behavior, Type I (no injury)
Undetermined Suicide-Related Behavior, Type II (injury)
Self-Inflicted Death with Undetermined Intent (fatal outcome)
Suicide Attempt (some degree of suicidal intent)
Suicide Attempt, Type I (no injury)
Suicide Attempt, Type II (injury)
Suicide (fatal outcome)

Note. Adapted from "Rebuilding the Tower of Babel: A Revised Nomenclature for the Study of Suicide and Suicidal Behaviors Part II: Suicide-Related Ideations, Communications, and Behaviors," by M.M. Silverman et al., 2007b, *Suicide and Life-Threatening Behavior, 37*(3), p. 266. Copyright 2007 by the American Psychological Association.

Prevalence of college student suicidality.

Suicidal thoughts and behaviors are surprisingly prevalent among college students. The most frequently cited surveys of suicide ideation among college students include the National College Health Risk Behavior Survey (NCHRBS; U.S. Department of Health and Human Services CDC, 1995) and the American College Health Association's annual National College Health Assessment (ACHA-NCHA; American College Health Association – National College Health Assessment, 2006). Both surveys indicate that just over 10% of college students report having seriously considered attempting suicide within the past twelve months, with 1.5% reporting that they made at least one suicide attempt during this time period. However, other surveys have found that as many as 43.7% of students report having suicide ideation in the past year and 5.5% report having made a suicide attempt (Rudd, 1989).

These differences highlight the importance of survey characteristics, such as the type and number of questions asked about suicide, in influencing students' response patterns. Surveys that only ask a single question about suicide-related thoughts, such as the ACHA-NCHA and NCHRBS, obtained higher rates of students endorsing serious suicidal ideation compared to a survey that asked multiple questions reflecting varying degrees of suicidality. For example, Drum et al. (2009) found that, when they were also asked about non-suicidal wishes for death, only 6% of undergraduates reported serious suicidal ideation within the previous 12 months.

Suicidal thoughts and behaviors exist on a continuum beginning with passive thoughts of death, such as the thought "I wish I were dead," and continuing through increasingly severe manifestations of suicidal thinking, intent to take suicidal action, forming plans, making preparations, threatening and rehearsing an attempt, attempting suicide, and making multiple attempts (Drum et al., 2009; Potter, Powell, & Kachur, 1995; Silverman et al., 2007a, 2007b). Individuals who enter the suicidal continuum tend to progress along it, and repeated experience with suicidal thoughts and behaviors greatly increase the risk of ultimately dying by suicide (Joiner et al., 2005; Schwartz, 2006b; Silverman, 2005). It is therefore crucial to understand what factors contribute to or protect against progression along the continuum.

Risk Factors for Suicidality

Recent theories of vulnerability to suicidal thoughts and behaviors have differentiated risk factors, which are enduring and empirically derived, from warning signs, which are behavioral markers of imminent suicide risk (Rudd, 2003; Rudd, Berman, Joiner, Nock, Silverman, & Mandrusiak, 2006). Berman, Jobes, and Silverman (2006) classify risk factors for suicidality as either fixed or variable and either proximal or distal. Fixed risk factors, such as gender and age, cannot readily be changed, while variable risk factors, such as sadness and hopelessness, can change spontaneously or through intervention (Kraemer, Kazdin, Offord, & Kessler, 1997). Proximal risk factors are situational, such as having access to a firearm or a recent breakup of a romantic relationship, and are often conceptualized as precipitating or potentiating a suicidal act

(Moscicki, 1995). Distal risk factors encompass pre-existing vulnerabilities, such as depression, impulsivity, low distress tolerance or poor problem solving skills, without which a proximal risk factor would not result in suicidal behavior (Berman et al., 2006; Rudd, 2004a). Variable and distal risk factors attract the most attention in the literature because they are particularly relevant to intervention efforts. The risk factors for developing suicide ideation overlap with but are also distinct from the risk factors for making a suicide attempt.

Fixed risk factors for suicidality among college students.

Research on fixed risk factors for suicide ideation and attempts in college students has yielded conflicting results. The majority of evidence indicates that there are no differences among college men and women regarding prevalence of suicide ideation or attempts (Drum et al., 2009; Rudd, 1989; Westefeld et al., 2005). This is in contrast to gender differences in suicidality noted across the lifespan, such that women are more likely than men to report suicide ideation and attempts throughout their lives (Canetto, 2008). Lesbian, gay and bisexual students are at increased risk for both developing suicide ideation (Kisch et al., 2005) and attempting suicide (D'Augelli et al., 2001) compared to their heterosexual peers. However, these effects may be stronger for lesbian and bisexual women than they are for gay and bisexual men (Garcia et al., 2002).

Although Rudd (1989) did not find any significant relationship between self-reported suicide ideation and race, other studies have found differences in the prevalence of both suicide ideation and attempts according to racial and ethnic background. For example, students of Asian descent are more likely to report suicide ideation than White

students, who in turn are more likely to report ideation than Black students (Gutierrez, Muehlenkamp, Konick, & Osman, 2005; Kisch et al., 2005; Morrison & Downey, 2000). There is some evidence that Latino/a youth (Zayas, Lester, Cabassa, & Fortuna, 2005) and American Indian/Alaska Native youth (Goldston, Molock, Whitbeck, Murakami, Zayas, & Nagayama Hall, 2008) are more likely to attempt suicide than their White peers.

Distal risk factors for suicidality among college students.

Negative life events, low self-esteem, and poor problem solving abilities have been identified as significant risk factors for suicide ideation (McAuliffe, Corcoran, Keeley, & Perry, 2003; Wilburn & Smith, 2005). Feelings of depression and hopelessness are the most common emotional risk factors for suicide ideation identified in the literature (A. T. Beck, Steer, J. S. Beck, & Newman, 1993; Beck & Weishaar, 1990; Konick & Gutierrez, 2005; Weishaar & Beck, 1992). Nearly 95% of ideators report feelings of depression, but only 30% of students who report feeling depressed also have suicide ideation (Furr, Westefeld, McConnell & Jenkins, 2001; Kisch et al., 2005). It is therefore important to identify factors that differentiate depressed students who develop suicide ideation from those who do not.

Furr et al. (2001) found that depressed college students who developed suicide ideation were significantly more likely to report feelings of helplessness and hopelessness than depressed students without suicide ideation. Heisel, Flett and Hewitt (2003) found that social hopelessness, a subtype of hopelessness specific to social relationships, differentiated ideators from non-ideators in a college student sample. Student personality

profiles on the Millon Clinical Multiaxial Inventory (MCMI) revealed that students with suicide ideation manifest "interpersonal hypersensitivity;" that is, they are both more craving of social contact and more sensitive to rejection than their non-suicidal peers (Rudd et al., 1995). Social isolation may play a significant role in the development of suicide ideation (Joiner & Rudd, 1996b).

Researchers have examined multiple predisposing cognitive and mood factors, such as problem-solving style and emotional coping response, in order to isolate risk factors that differentiate ideators from attempters (see Dieserud, Roysamb, Braverman, Dalgard & Ekeberg, 2003, for a review). Hopelessness has been shown to have some predictive power in identifying ideators with increased risk for attempting suicide (Beck, 1986; Weishaar & A. T. Beck, 1992; Joiner & Rudd, 1996b). Family history of suicide is also associated with increased risk for attempting suicide (Trémeau, Staner, Duval, Corrêa, Crocq, Darreye, et al., 2005) and differentiates multiple attempters from single attempters (Jeglic, Sharp, Chapman, Brown, & Beck, 2005). However, the strongest and most consistent predictor of whether or not a student will make an attempt is a history of past attempts (Garland & Zigler, 1993; Joiner et al., 2005; Lewinsohn, Rohde, & Seeley, 1996; Maris, 1992; Pollock & Williams, 1998; Schwartz, 2006b; Steer, Beck, Garrison, & Lester, 1988).

The Interpersonal-psychological theory of suicide risk.

Joiner et al. (2005) examined the strength of the relationship between lifetime number of suicide attempts and current risk of attempting suicide, controlling for known covariates including age, gender, marital status, ethnicity, family history of suicide, past

and current depression, bipolar disorder, and past and current legal troubles. Even after including these known correlates, the relationship between lifetime number of suicide attempts and suicide risk rating was unaffected. The authors theorized that increased experience with self-harming acts, especially potentially lethal acts, generates "competence and courage" (Joiner et al., 2005, pg. 291). According to this conceptualization, previous suicide attempts result in habituation to self-harm and diminish the impact of social taboos and fears associated with suicide, so that the prospect of relief from psychological pain becomes more powerful than the threat of physical pain.

These findings led Joiner (2005) to formulate an interpersonal-psychological theory of suicidal behavior, which posits that serious suicidal behavior will not occur unless an individual has both the desire *and* the ability to commit suicide. Because the theorized elements of suicidal desire are more directly relevant to the current study, these will receive a greater level of focus in this review. According to Joiner's theory, the desire to kill oneself stems from both a thwarted need for belongingness and a perception that one is a burden on others. While acknowledging that humans have many intra- and interpersonal needs, Joiner asserts that the predominant life-sustaining needs can be collapsed into the two "bedrock needs:" belongingness, which involves having frequent and positive interactions with others, and effectiveness, which depends on believing oneself to be a competent contributor to one's social group (p. 96).

Without using the precise term *thwarted belongingness*, both empirical and anecdotal evidence has found strong associations between social isolation or withdrawal

and risk for suicide ideation and completion (Heisel et al., 2003; O'Reilly, Truant, & Donaldson, 1990; Rudd et al., 1995). Baumeister and Leary (1995) conclude, based on their review of both theoretical writings and empirical studies of human motivation, that "human beings are fundamentally and pervasively motivated by a need to belong" (p. 522). The life-sustaining role of belongingness is poignantly captured by the suicide note of a young man who died by jumping from the Golden Gate bridge: "I'm going to walk to the bridge. If one person smiles at me along the way, I will not jump" (Friend, 2003, as cited in Joiner, 2005, p. 120). Joiner (2005) also references statistics showing significant reductions in the number of calls to suicide hotlines and in the number of completed suicides during times when people come together as a community. The protective effects of coming together as a group occur regardless of whether the event is triumphant, such as the victory of a local sports team, or tragic, such as the terrorist attacks of September 11, 2001. Not only does the lack of belongingness contribute to a desire for death, but the presence of belongingness also creates a powerful tie to life.

The role of perceived burdensomeness in the development of suicidal desire has not been as widely studied as that of thwarted belongingness, but Joiner and his colleagues have collected compelling evidence for this association (Joiner et al., 2002; Pettit, Lam, Voelz, Walker, Perez, Joiner, et al., 2002; Van Orden, Lynam, Hollar, & Joiner, 2006; Van Orden, Merrill, & Joiner, 2005). In a study of the suicide notes left by people who survived a suicide attempt and people who completed suicide, Joiner et al. (2002) found that perceived burdensomeness correlated with both lethality of methods used in the attempt and survival versus completion. Other factors that were included in

the model, such as hopelessness, desire to control others, desire to control one's own emotions, and emotional pain, did not differentiate between lethality of methods or survival versus completion. A separate study of an adult outpatient population found that perceived burdensomeness was a more robust predictor than hopelessness of suicide risk factors such as attempting suicide and scores on the Beck Scale for Suicide Ideation (Van Orden et al., 2006). The role of perceived burdensomeness in generating the desire for death has been observed across cultures (Pettit et al., 2002). It is important to note that it is only the *perception,* not the actual fact, of being a burden on loved ones or kin that contributes to the desire for death. As Joiner (2005) emphasizes, this perception of burdensomeness is almost always a cognitive distortion, similar to the distortion of other cognitive processes in people suffering from severe depression.

Joiner (2005) proposes that as long as a person retains either a sense of efficacy and contribution to a social group or meaningful interpersonal relationships, the person will remain attached to life and will not develop serious desire or intent to die by suicide. If the person is thwarted in both the need for a sense of belonging and the need to feel productive and effective, then the desire to commit suicide is likely to emerge. However, completed suicide will not occur, even when suicidal desire is present, if the person has not developed the ability to enact serious self-injury through habituation to both the physical pain and the fear associated with lethal self-harm. This habituation may occur through many pathways, such as repeated exposure to or involvement in interpersonal violence, or exposure to situations that are physically provocative and potentially endangering such as drug use or prostitution. The most potent form of habituation occurs

through deliberate self-injury and prior suicide attempts. The interpersonal-psychological theory of suicide provides a valuable framework for understanding and interpreting the plethora of identified risk factors for suicidality and serious suicidal behavior. However, this framework can be supplemented with insights that come directly from individuals who have experienced suicidal thoughts and behaviors.

Self-reported risk factors for suicidality.

Many authors have noted the importance of understanding the subjective experiences of suicidal individuals (Dieserud et al., 2003; Michel et al., 2002; Michel, Valach, & Waeber, 1994). Clinicians tend to report reasons for the suicide attempts of their clients that are quite different from those given by the clients themselves (Bancroft, Hawton, K. & Simkin, 1979; Michel et al., 1994). This may be because "health professionals are likely to think in terms of the *causes* of suicide attempts; patients are more likely to give *reasons* for their attempts and thus see themselves as agents of their actions" (Michel et al., 2002, p. 428). It is therefore valuable to understand the reasons to which students attribute their suicide ideation or attempts.

Furr et al. (2001) found that, when asked about factors contributing to their suicide ideation or behavior, 49% of students reported feelings of hopelessness, 47% reported feelings of loneliness, and 37% reported feelings of helplessness. Westefeld et al. (2005) found that the primary reasons students reported for their suicide attempts were depression, relationship troubles, stress, hopelessness, family problems, anxiety, and social isolation. When asked to rate a number of factors that contributed greatly to the development of serious suicidal ideation, the three most frequently rated factors in a large

national survey of college suicidality were: wanting relief from emotional or physical pain; problems with romantic relationships; and the desire to end one's life (Drum et al., 2009). These studies used similar survey methods in which the students were asked to select all the reasons that applied to them from a list.

While these studies provide valuable information about students' perceptions of the risk factors for developing suicidal thoughts and behaviors, the research methodology may also be missing important features by providing a checklist rather than allowing students to freely respond to open-ended questions. Self-report data from students who experience suicidality has the potential to inform more effective suicide prevention programs on college campuses.

Campus Suicide Prevention

College officials struggle to develop and implement policies that both protect students against suicidal behaviors and protect their institutions from liability. Court decisions regarding liability for self-inflicted death have increasingly focused on the issue of duty to protect, and some recent cases have resulted in rulings that colleges and universities have a duty to protect a student if the institution has knowledge of that student's suicidality (Lake & Tribbensee, 2002). College administrators nationwide attended closely to the proceedings *Shin v. MIT* (2005), in which the parents of a student who completed suicide filed a 27 million dollar wrongful death lawsuit against the university and several employees. The case was allowed and eventually settled out of court, with MIT paying the Shins an undisclosed amount (Bombardieri, 2005; Rawe &

Kingsbury, 2006). In the wake of this case, many universities have implemented or considered “forced leave” policies for students who admit to having suicidal thoughts or engaging in suicidal behaviors.

Enacting such policies, however, does not protect universities from litigation. Rather, enforcing medical withdrawal for students with mental health problems may violate statutes such as the Americans with Disabilities Act (1990), which protects individuals with emotional disabilities against discrimination. In *Nott v. George Washington University* (2006), a student sued the university for threatening to expel him if he did not voluntarily withdraw after he self-hospitalized for depression (Kinzie, 2006). University administrators find themselves caught in a legal bind, in which they may be held liable for taking either too much or to little action regarding students on campus with mental health problems. Furthermore, forced leave policies are likely to endanger lives by discouraging suicidal students from seeking help due to the threat of expulsion (Pavela, 2006; Rawe & Kingsbury, 2006).

Issues of liability create a dual-role conflict for institutions when they identify a student as being suicidal. Universities diminish their ability to help suicidal students when they react to these students punitively and view them as problems to be "dealt with." The student in crisis is then likely to experience agents of the college or university as adversaries rather than helpers, and will be less likely to confide in these agents or to admit distress in the future. Silverman and Felner (1995) outline the characteristics of successful preventive approaches to reducing suicide on college campuses. These approaches acknowledge that there is no one solution to this problem, that high-risk

behaviors are interrelated, and that effective prevention depends upon integration of services and programs. Furthermore, the interventions should be aimed at changing institutions rather than individuals, and should be implemented continuously and at the population level (Drum et al., 2009; Silverman & Felner, 1995; SPRC, 2004).

It is imperative for both student safety and institutional protection from liability that colleges and universities develop clear policies outlining action steps when a student acknowledges suicidal intent. However, many institutions do not currently have such policies, and instead rely solely on the judgment of clinicians and administrators (Francis, 2003). The creation of these policies must be guided by legal and ethical considerations (Gose, 2000) and also by research examining the subjective experiences of suicidal college students (Michel et al., 2002; Michel et al., 1994). Current approaches to helping students who are actively suicidal rely upon the identification and referral of these students to treatment. However, the process of identifying suicidal students depends primarily on self-identification by students. Therefore it is crucial to augment the current knowledge regarding patterns of both formal and informal help seeking among both the general college student population and the subpopulation of students who experience suicidality.

Help Seeking by College Students

Understanding patterns of help seeking by college students who are not suicidal may improve efforts to increase help seeking by suicidal students. Between 30% and 40% of the general college student population has a lifetime history of mental health service

utilization (Deane & Todd, 1996; Kahn & Williams, 2003; Soet & Sevig, 2006) and reports estimate that up to 60% of college students have taken psychiatric medication at some point in their lives (Carter & Winseman, 2003). Ten percent of college students utilize their campus mental health services annually (Schwartz, 2006b). However, as psychotropic medication is increasingly prescribed for children and adolescents, thus allowing greater numbers of students with persistent and severe psychological problems to attend college, the use of college mental health services may increase (Benton, Robertson, Tseng, Newton & Benton, 2003; Rudd, 2004b).

Alarmingly, 92% of counseling center directors report that the number of students on campus with severe psychological problems has increased in recent years (Gallagher, 2006). Rudd (2004b) suggests that these reports may reflect the changing demographics of the college population, which increasingly represent the nation's racial, ethnic and socioeconomic diversity. However, there is some uncertainty as to whether clinician reports of increasing severity of college mental health needs are accurate. Schwartz (2006a) studied the intake measures used by one counseling center across ten years and found no change in this self-report measure of client personality pathology. Benton et al. (2003) collected reports from another counseling center made by the treating therapists regarding client distress levels, and found that over a span of 13 years, client distress increased in 14 out of 19 problem areas. The generalizability of both studies suffers from their use of a single counseling center. Results from the national survey of counseling center directors (Gallagher, 2006) support the trend of increasing

client distress, but they also rely upon the perceptions of administrators rather than clients or therapists.

Regardless of whether student distress is objectively growing more severe, the numbers of students utilizing campus mental health services is increasing. Sixty-three percent of counseling center directors report greater demand for counseling services, and independent research on college mental health trends also notes increasing counseling center usage (Cooper, Resnick, Rodolfa, & Douce, 2008; Gallagher, 2006; Kitzrow, 2003). Unfortunately, this increasing demand for services is occurring in the context of either no change in funding resources or a decrease in funds for mental health services (Gallagher, 2006). Increasing demand for services, reduced funding, and potentially intensifying psychological distress among students negatively impact the possibilities of treatment and outreach for suicidal students, making it imperative that such efforts are guided by research and effectively targeted.

Successful referral to treatment for high-risk individuals has been promoted as important means of decreasing suicide among college students (Deane & Chamberlain, 1994; Joiner & Rudd, 1996a; Rudd & Joiner, 1998; Schwartz, 2006b; Schwartz & Whitaker, 1990). Psychotherapy, alone or in conjunction with psychopharmacology, has shown efficacy in reducing suicidality among both ideators and attempters in the general population (Cosgrave et al., 2007; Guthrie et al., 2001; Linehan, Heard, & Armstrong, 1993; Olfson, Shaffer, Marcus, & Greenberg, 2003). It therefore follows that the psychiatric and psychotherapeutic services available through campus health centers

would benefit suicidal students. In fact, there is reason to believe that use of college counseling services does provide some protection against completing suicide.

Schwartz (2006b) compared suicidal risk factors and outcomes for counseling center clients based off the prevalence of the four most relevant risk factors for suicide completion: male gender; access to a firearm; history of an emotional or mental illness; and history of previous suicide attempts. He concluded that if there were no protective benefit of receiving counseling services, counseling center clients would be expected to complete suicide at a rate eighteen times greater than the general student suicide rate. However, the actual rates of completed suicide among counseling center clients are only three times greater than those of the general student population, suggesting that the services provided are indeed effective at reducing completed suicide among clients.

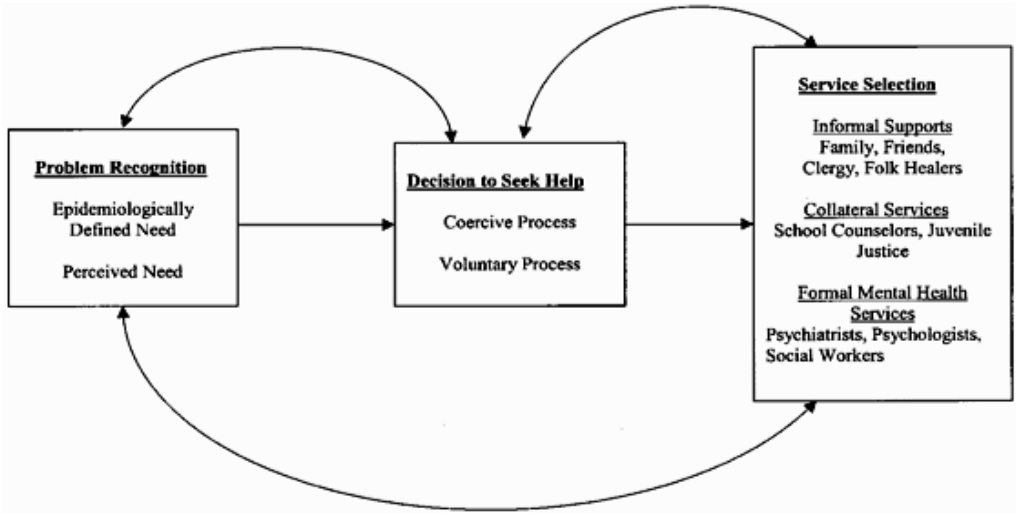
It is therefore concerning that only 26% - 29% of college students are aware of their campus' mental health resources (King et al., 2008; Westefeld et al., 2005). Furthermore, almost 80% of students who complete suicide never receive college mental health services (Gallagher, 2004; Kisch et al., 2005; Schwartz, 2006b). Although the benefits of seeking counseling may be due to the characteristics of those who seek help as well as the effectiveness of the counseling services, efforts to raise awareness about the mental health services available on campus remain important. The success of these efforts will depend in part upon research that increases our understanding of the reasons that some students choose to confide in peers or professionals while others avoid seeking help entirely.

Models of Mental Health Help Seeking

General models of help seeking for mental health problems, while not specific to college populations, provide a valuable framework for understanding factors that influence students' decisions to seek or avoid help. This section provides a brief overview of patterns and barriers to seeking both formal and informal help. The decision to seek help, when conceptualized as a dynamic and active process on the part of the seeker, depends upon the individual's perception that a problem exists and recognition of a need for help, as well as access to appropriate help sources. Cauce et al.'s (2002) model of help seeking for mental health issues among adolescents outlines a three-step pathway that begins with problem definition, proceeds to the decision to seek help, and culminates in selection of a helper, which may be a treatment service or provider (see Figure 2.1).

It is important to note that service selection includes a range of possible support services, such as informal support from family and friends, collateral services, and formal mental health services. Contextual and cultural factors influence each step along this pathway, resulting in unique patterns of problem perception, recognition, and culturally construed meaning that influence decisions about seeking help (Cauce et al., 2002). Although service utilization is generally linked with problem recognition (Leaf et al., 1985), this link is neither direct nor reliable and is affected by numerous barriers to seeking help.

Figure 2.1. A Model for Mental Health Help Seeking



Note. From "Cultural and Contextual Influence in Mental Help Seeking: A Focus on Ethnic Minority Youth," by A.M. Cauce et al., 2002, *Journal of Consulting and Clinical Psychology, 70*(1), p. 46. Copyright 2002 by the American Psychological Association.

Barriers to seeking professional help.

Stefl and Prosperi (1985) conceptualized barriers to help seeking as pertaining to four predominant areas: availability (including knowledge about available services), accessibility (transportation and logistical concerns), acceptability (including both concerns about others' perceptions and personal stigma against counseling), and affordability. Individuals who manifest high need for help but do not seek professional services report high salience of acceptability concerns, particularly regarding the impact of perceived stigma (Stefl & Prosperi, 1985). For many college students, accessibility and affordability may be less prominent barriers due to the prevalence of on-campus counseling centers offering low-cost or no-cost services to students. Interestingly, even among low-income adolescents living in a rural area, accessibility and affordability were

the least frequently mentioned barriers to seeking help (Freedenthal & Stiffman, 2007). However, it is important not to assume that access to affordable services is not a barrier for college students, and efforts to increase the accessibility and affordability of campus resources should continue. Additionally, lack of information about available counseling resources appears to be a barrier for roughly three quarters of college students, suggesting that campuses need to increase their outreach activities and promotion of mental health services (King et al., 2008; Westefeld et al., 2005). However, the bulk of research regarding barriers to seeking professional help has focused on problems relating to the acceptability of help seeking.

The most widely studied predictors of formal help seeking are psychological and attitudinal factors such as stigma, fear, loss of control and impact on self-esteem. Unsurprisingly, favorable attitudes towards counseling predict voluntary help seeking behaviors and correlate significantly with reported history of help seeking (Carlton & Deane, 2000; Deane & Todd, 1996; Fischer & Turner, 1970; Tijhuis, Peters, & Foets, 1990). Conversely, negative attitudes towards counseling explain why people do not seek mental health services when they have an identified need (Fischer & Cohen, 1972; Fischer & Farina, 1995; Jarvis, 2002; Stefl & Prosperi, 1985). Kushner and Sher (1989, 1991) conceptualized the decision to seek professional help as a conflict between approach tendencies, such as experiencing high levels of psychological or emotional distress, and avoidance tendencies, such as fear of treatment. The stigma attached to acknowledging mental health needs and seeking formal help is considered a primary

cause of service underutilization, yet there is little information available about how the association between stigma and counseling is formed (Broadhurst, 2003).

Cultural influences on decisions to seek help.

Pescosolido (1992) proposed that the decision to seek help should be viewed not as an individual process but rather as embedded in a social context. Social networks may either promote or discourage formal help seeking, depending upon their cultural norms (Cauce et al., 2002). Culturally relevant attitudes and perceptions that have been found to influence young people's formal help seeking include emphasis on self-reliance and concerns about stigma and confidentiality (Barker & Adelman, 1994; Kuhl, Jarkon-Horlick, & Morrissey, 1997).

Demographic correlates of formal help seeking such as ethnicity and gender have been widely studied. Among college students, being female and White are predictive of increased help seeking. (Deane & Chamberlain, 1994; Deane & Todd, 1996; Morgan, Ness, & Robinson, 2003). Studies of other youth populations have also found that racial and ethnic minority youth are less likely than Caucasian youth to seek professional help for mental health concerns (Barker & Adelman, 1994; Freedenthal & Stiffman, 2007; Molock et al., 2007; Munsch & Wampler, 1993).

Help seeking from informal support sources.

In addition to influencing decisions to seek professional help, social networks serve as sources of informal support (Rogler & Cortes, 1993). The majority of individuals, and adolescents in particular, prefer informal support to professional help sources (Deane & Todd, 1996; O'Donnell et al., 2004; Offer, Howard, Schonert, &

Ostrov, 1991). College students also report a preference for informal over formal sources of help, with international students expressing a particularly strong preference for informal help (Oliver, Reed, Katz, & Haugh, 1999). In a rural, non-clinical sample, Dubow et al. (1990) found that 89% of adolescents consulted friends, 81% consulted family members, and less than 10% consulted mental health agencies regarding a personal problem. Furthermore, friends and family were reported to be helpful by over 90% of adolescents who turned to these sources of informal help (Dubow et al., 1990). Other studies have also found that informal help sources are perceived as helpful (Molock et al., 2007). However, it has also been noted that in the case of adolescent help seeking, peers may be poorly equipped to provide helpful responses to difficult problems (Offer et al., 1991). Therefore, distressed adolescents who rely solely on peers for support may not receive the help they need.

Some evidence suggests that informal help seeking increases the likelihood of formal help seeking (Nada-Raja et al., 2003; Saunders et al., 1994). This association may reflect the role of the confidant in referring the help seeker to formal treatment, or it may reflect a general tendency towards seeking help on the part of those who confide in informal sources (Howard et al., 1996). Relatively little research has explored the interface between informal and formal support networks (Broadhurst, 2003; Nada-Raja et al., 2003). As Broadhurst (2003) notes, one inherent problem in the existing research is the use of clinical samples to explore the help seeking process. In order for studies to elicit lay understandings and behaviors related to help seeking by potential clients, researchers must use non-clinical samples, avoid pre-defined constructs, and

acknowledge that there will be meaningful differences between professional and lay definitions of problems. Additionally, the existing research tends to focus on deficiencies in service use or social networks, rather than investigating the supportive processes of social networks. It is therefore important to conduct studies that elicit understandings of help seeking from the perspective of individuals who have not received formal treatment.

Suicidality and Help Seeking

Although suicidal behaviors have historically been understood as a "cry for help" (Farberow & Shneidman, 1961), current research indicates that most suicidal individuals avoid seeking help (Barnes et al., 2001; Booth & Owens, 2000; Dubow et al., 1990; Offer et al., 1991; Steer et al., 1988). In a prospective study of suicide outcomes, Tiller, Krupinski, Burrows, Mackenzie, Hallenstein and Johnstone (1998) found that the majority of those who completed suicide did not make any identifiable effort to seek help. Male suicide attempters, who are at greater risk of completing suicide than females, are less likely to receive help either before or after a suicide attempt (Carlton & Deane, 2000; Gould et al., 2004; Mishara, Houle, & Lavoie, 2005). While some attempters do acknowledge that their motivation for attempting suicide was to get help, most attempt survivors report either that their intent was to die or that they experienced ambivalence about dying (Boergers, Spirito, & Donaldson, 1998; Kessler, Borges, & Walters, 1999; Rodham, Hawton, & Evans, 2004; Shneidman, 1979). These findings suggest that, far from being a cry for help, suicidal behaviors are associated with avoidance of help.

Help negation during suicidal crises.

The concept of *help negation* (Clark & Fawcett, 1992) refers to individuals' refusal to accept or access available formal help resources during or immediately after an acute period of suicidality. This phenomenon, which has been described as "identifiably unique" to suicidality, has been attributed to various factors such as hopelessness, pessimism, and cynicism on the part of suicidal individuals (Rudd et al., 1995, p.499). However, other findings suggest that hopelessness does not explain help negation, and that other factors associated with suicidality, such as cognitive distortions or maladaptive coping strategies, may contribute to the refusal to seek help at the precise moment when it is most needed (Deane et al., 2001).

In both clinical and non-clinical samples, higher levels of suicidality have been found to predict lower intention to seek help (Carlton & Deane, 2000; Deane et al., 2006; Deane et al., 2001; Saunders et al., 1994). Barnes et al. (2001) found that individuals who were treated at an emergency department for a suicide attempt were less likely to have sought professional help in the past month than a random sample of control subjects. Rudd et al. (1995) compared young adults who completed treatment after a suicidal crisis with those who withdrew prematurely, and found that the two groups were similar on all demographic characteristics, including symptom severity at intake, the proportion of ideators, attempters and multiple attempters in each group, DSM-IV diagnoses, and basic personality features. Those who withdrew prematurely showed elevated life stress, problem-solving deficits, and poor coping one month after the crisis. The distressing finding that those with the greatest need are also the least likely to seek help illuminates

how daunting the task of campus suicide prevention truly is, and how necessary it is to expand current knowledge regarding informal avenues of seeking help.

Informal help seeking for suicidality.

Young people contemplating suicide are more likely to confide in their peers than in either parents or professionals (Barnes et al., 2001; Cauce et al., 2002; De Leo et al., 2005; Freedenthal & Stiffman, 2007; Molock et al., 2007; Nada-Raja et al., 2003; O'Donnell et al., 2004). Among a study of attempters, friends and family were identified as the preferred source of help and were consulted by nearly half of those who attempted suicide (Barnes et al., 2001). The fact that half of these individuals consulted a family member or a friend before making a nearly lethal attempt suggests that improving responses by informal help sources has great potential for saving lives. Additionally, it is vital to understand the reasons that inhibited the other 50% of attempters from seeking informal help.

Gilchrist and Sullivan (2006) attempted to answer this question through a sociocultural analysis of community members' perspectives on youth suicidality and help seeking. Participants were interviewed about their beliefs and attitudes regarding the question "why do young people who are contemplating suicide not ask for help?" (p. 76). The primary themes that emerged from these interviews were the importance of community relationships and trust, and the deterrent effects of stigma and shame. Younger participants reported that the perceived likelihood of counselors or teachers violating their confidentiality would deter suicidal youth from confiding in these adults. They also suggested that suicidal youth would not ask for help due to concern over how

their parents might react to them, such as ignoring them, laughing at them, misunderstanding their feelings, or overreacting.

In addition, youth expressed attitudes that were protective towards their parents, such as the idea that parents would not know how to cope and would be too heavily burdened by knowledge of their child's suicidal thoughts. Peers were perceived as more approachable than adults, but were still viewed with distrust due to the stigma and loss of esteem that might result if peers were aware of one's suicide ideation. The results of this study, while informative, are limited by the fact that the participants were hypothesizing rather than speaking from a personal experience of suicidality. In order to truly learn about the help seeking decisions of suicidal individuals, studies need to survey individuals who have both experienced suicide ideation and concealed their ideation from members of their social networks.

Self-Concealment and Help Seeking

Avoidance of informal sources of help is likely related to the concept of *self-concealment,* which is defined as the "predisposition to actively conceal from others personal information that one perceives as distressing or negative" (Larson & Chastain, 1990, p.440). Concealing distressing personal information has been found to hinder psychological adjustment, physical health, and physical and emotional healing (Cepeda-Benito & Short, 1998; Ichiyama, Colbert, Laramore, & Heim, 1993; Pennebaker, 1988; Pennebaker et al., 1989; Pennebaker & Susman, 1988). For example, keeping intimate information secret has been associated with more interpersonal conflict (Straits-Troster,

Patterson, Semple, Roth, McCutchan, Chandler, et al., 1994), greater depression (Evans & Katona, 1995), and reduced recovery from severe psychological trauma (Orbuch, Harvey, Davis, & Merbach, 1994). Among college students, higher measured self-concealment has been found to correlate significantly with self-reported anxiety, emotional distress, depression, shyness, and low self-esteem (Ichiyama et al., 1993; Kelly & Achter, 1995; Lopez, Mitchell, & Gormley, 2002; Potoczniak, Aldea, & DeBlaere, 2007). Actively hiding personal information has been found to show a stronger relationship to emotional distress than passively failing to disclose information (Kawamura & Frost, 2004).

Research regarding the impact of self-concealment on college students' help seeking behaviors has generated conflicting results. Kelly and Achter (1995) found that in a sample of 257 undergraduates, self-concealment was associated with less favorable attitudes towards counseling. However, high self-concealers paradoxically reported greater intent to seek counseling. The researchers proposed that self-concealing students experience increased emotional distress in the context of weaker social support networks, and therefore have greater need for and greater likelihood of using professional counseling services.

However, in a sample of 732 undergraduates, Cepeda-Benito and Short (1998) found that low social support was associated with greater likelihood of seeking help only at low levels of self-concealment. High levels of self-concealment were associated with increased emotional distress, reduced social support, *and* greater avoidance of needed psychological treatment. In fact, high self-concealers were over three times more likely

than low self-concealers to report needing but not seeking psychological help. Recent studies of self-concealment in samples of Japanese students (Omori, 2007) and Korean students (Yoo, Goh & Yoon, 2005) also found that self-concealment is associated with reduced likelihood of formal help seeking.

Cramer (1999) used path modeling to re-analyze the data from both Kelly and Achters' (1995) and Cepeda-Benito and Shorts' (1998) studies in order to evaluate the direct and indirect effects of personal distress, attitudes towards counseling, social support, and self-concealment on perceived likelihood of seeking psychological help. The resulting model proposed that self-concealment negatively impacts help seeking, but has a greater effect on the intensification of psychological difficulties than on the process of getting relief. This finding suggests that not only is concealing one's suicidal ideation from informal confidants associated with reduced likelihood of seeking formal help, but also that the act of concealing the personal distressing information is likely to intensify emotional distress.

Leech (2007) tested Cramer's (1999) model with a sample of master's students in counseling, and Liao, Rounds, and Klein (2005) tested the model in a sample of Asian and Asian American college students. Results from both studies indicated that the model retained good fit, but Liao, Rounds and Klein (2005) found that self-concealment had a more central role in Asian and Asian American students' attitudes towards help seeking than it did for White students. Morgan et al. (2003) added gender, racial background and student status to Cramer's (1999) model, and found that the students most likely to seek counseling were white, female undergraduates with higher levels of distress, greater self-

concealment, more positive attitudes towards counseling, and higher intentions to seek counseling.

Kawamura and Frost (2004) studied the relationship between self-concealment and perfectionist beliefs, and found that self-concealment has different effects depending on whether the target for disclosure is a family member, a friend, or a professional counselor. Unwillingness to discuss issues with family members and friends was found to be associated with maladaptive perfectionism, but unwillingness to discuss issues with a counselor was not. The authors suggest that students with a perfectionist style are more sensitive to having those close to them discover that they are struggling with personal issues.

Self-concealment may therefore exert a strong influence over students' decisions to conceal their suicidal struggles from their peers, partners, and families. However, it is important to note that self-concealment refers specifically to a stable personality orientation towards concealing information from others (Wismeijer, van Assen, Sijtsma, & Vingerhoets, 2009). Individuals who keep secrets as a function of a unique situational context, or who passively fail to disclose personal information due to factors such as hopelessness, depression, or isolation, may not be high in self-concealment. Therefore self-concealment likely underlies the motivations of some but not all students who choose to conceal their suicidal thinking.

Reasons for Concealing Suicidality

Although the aforementioned studies indicate important emotional and behavioral consequences of self-concealment, they do not illuminate the reasons behind either actively concealing or failing to disclose one's suicidal thoughts. Qualitative studies of informal help avoidance, while not explicitly examining the self-concealment construct, do suggest possible motivations for concealing one's suicide-related thoughts and behaviors. In a community sample of young adults, Nada-Raja et al. (2003) found that one third of self-harmers who avoided formal or informal help reported attitudinal barriers that prevented them from seeking help. These barriers included the belief that they should be strong enough to handle the problem on their own, the belief that the problem would resolve itself, the belief that no one could help, and feelings of embarrassment. Only 10% of those who did not seek help reported practical barriers such as financial concerns or lack of knowledge about available services.

Freedenthal and Stiffman (2007) found similar results in their study of American Indian youth with histories of suicide ideation or attempts. Even among this low-income rural sample, only 3 out of 73 reasons for not seeking help concerned structural barriers such as cost or lack of service availability. Stigma was identified as a barrier by almost one third of adolescents who avoided either formal or informal help. Adolescents' reasons for avoiding informal help centered primarily around stigma, feeling alone, and fear of potential consequences of disclosure such as involuntary hospitalization. While these results are informative, they were generated by a sample consisting solely of American Indian youth, and therefore may be of limited generalizability.

Purpose of the Current Study

Researchers have identified the need to explore the process of informal help seeking from the perspectives of individuals who have experienced suicidal thoughts and behaviors (Molock et al., 2007; Rogler & Cortes, 1993). College students provide a unique source of information in this regard both because they provide a readily sampled population and because the opportunity for primary prevention and public health interventions is greater than in the broader community (DeArmond & Marsh, 1984; Schiraldi & Brown, 2001). Of particular importance for both clinical treatment and prevention programming are the factors that influence students' decisions to conceal their struggles with suicidal thinking, because these reasons may illuminate changes that can be made to the campus environment that will reduce barriers to both formal and informal help seeking.

Although some inquiries have recently been made into suicidal individuals' reasons for avoiding formal and informal help (e.g., Freedenthal & Stiffman, 2007; Nada-Raja et al., 2003), no research to date has explored college students' self-reported reasons for concealing their suicide ideation. Qualitative studies of non-clinical populations are both noticeably lacking in the literature and necessary to establish the voices of those who do not seek help for suicidal thoughts and behaviors (Gair & Camilleri, 2003; Michel et al., 2002; Michel et al., 1994; Skogman & Öjehagen, 2003). Furthermore, researchers in the field of suicidology have called for greater integration of qualitative and quantitative methods in order to attain the most thorough understanding of these

complex phenomena (Goldney, Fisher, Wilson, & Cheok, 2002; Leenaars, 2002a, 2002b; Lester, 2002).

This study seeks to remedy a significant gap in the knowledge regarding the primary reasons that motivate students to conceal their suicidal thoughts from sources of both professional help and informal support. Further aims of this research include exploring whether students' demographic characteristics are associated with a greater frequency of certain motivations for concealing suicidal ideation, and whether a relationship exists between students' motivations for concealment and their likelihood of making a suicide attempt. Suicide ideators represent a heterogeneous group, of which a minority of individuals will proceed to self-harm and completed suicide. It is therefore a clinical priority to identify those ideators most likely to attempt suicide (McAuliffe, 2002; Bagley, 1975). This study combines qualitative and quantitative methodologies in seeking to answer the following questions.

Research Questions

Because this study is exploratory in nature and relies on primarily qualitative methodology, no a priori hypotheses were generated (Morrow, 2007). Instead, the following questions have emerged from a review of the existing literature. These questions are designed to remedy significant gaps in the current state of the knowledge regarding the phenomenon of concealment of suicidal thoughts.

Research question 1.

Question: Does the likelihood of concealing suicide ideation vary according to gender, race/ethnicity, sexual orientation or undergraduate versus graduate student status?

Rationale: Morgan et al. (2003) found that when gender, race/ethnicity, and student status were added to Cramer's (1999) model of antecedents to help seeking, these demographic variables contributed significantly to the model's explanation of variance in self-concealment and intentions to seek help. Research suggests that men are less likely than women to seek formal help when experiencing suicidality (Addis & Mahalik, 2003; Carlton & Deane, 2000; Gould et al., 2004; Mishara et al., 2005). Adolescent males may also be less likely than adolescent females to seek informal support (Boldero & Fallon, 1995). Additionally, some findings indicate that undergraduate students may be less likely to seek formal help than graduate students (Deane & Chamberlain, 1994; O'Neil, Lancee, & Freeman, 1984) and more likely to engage in self-concealment (Morgan et al., 2003).

Research suggests that racial and ethnic minority college students are less likely than White students to seek formal help or to disclose suicide ideation in a formal counseling setting (Deane & Chamberlain, 1994; Deane & Todd, 1996; Morrison & Downey, 2000). However, this does not necessarily indicate that these students are less likely to turn to informal sources of help. African American, Latino/a and American Indian adolescents have been shown to prefer sources of informal help such as friends and family members (Freedenthal & Stiffman, 2007; Molock et al., 2007; Munsch & Wampler, 1993). Therefore it is possible that racial and ethnic minority status may be

associated with increased informal help seeking or no difference compared to White students.

Research on help seeking patterns for students who identify as lesbian, gay, bisexual, or questioning (LGBQ) is extremely limited. There are some indications that lesbian and gay youth and college students are more likely to seek formal help than heterosexual students (Adams, 2009; Ciro, Surko, Bhandarkar, Helfgott, Peake, & Epstein, 2005), but there are no findings in the literature that suggest that LGBQ college students may be more or less likely to turn to informal support networks for personal problems. Youth that are questioning their sexual preferences or have not yet come out to their families may be reluctant to confide in family members, particularly regarding concerns related to sexual orientation (D'Augelli, Grossman, & Starks, 2008), which may contribute to decreased informal help seeking among students who identify as questioning.

Research question 2.

Question: After controlling for demographic characteristics, are students who conceal their suicide ideation more likely to attempt suicide than those who tell at least one person about their suicidal thoughts?

Rationale: Student status and racial/ethnic group membership have been found to be associated with differential risk for attempting suicide, and therefore it is important to control for these demographic factors (Goldston et al., 2008; Silverman et al., 1997; Zayas et al., 2005). Research also suggests that gay and lesbian youth may experience increased risk for attempting suicide compared to heterosexual youth (D'Augelli et al.,

2005; D'Augelli, Hershberger, & Pilkington, 2001; Garcia, Adams, Friedman, & East, 2002).

Because this is a new area of exploration, there are no prior research findings to indicate that students who conceal their suicide ideation are either more or less likely to attempt suicide than those who do not, and it may depend on the students' motivations for concealing their ideation. However, findings from the self-concealment literature suggest that, regardless of motivation, the act of concealing negative personal information may result in greater emotional distress (Evans & Katona, 1995; Ichiyama et al., 1993; Kelly & Achter, 1995; Lopez et al., 2002; Potoczniak et al., 2007). Additionally, those who conceal their suicidal thoughts from informal sources of support may also be less likely to seek formal help (Cepeda-Benito & Short, 1998; Omori, 2007; Yoo et al., 2005), and formal help seeking is associated with reduced likelihood of attempting suicide (Drum et al., 2009). Therefore it is possible that students who conceal their suicide ideation may be more likely to make a suicide attempt than those who do not.

Research question 3.

Question: What reasons do students self-report for concealing their suicide ideation, and which reasons are most common?

Rationale: Due to the qualitative nature of this inquiry, predictions are intentionally left open and it is expected that multiple unanticipated reasons for concealing suicide ideation will emerge. Freedenthal and Stiffman (2007), in conducting a similar study, note that hypotheses and questions must remain open ended because "the full range of participants' possible responses [cannot] be anticipated in advance" (p. 66).

The researcher's intention, following recommendations for representational thematic content analysis, is to draw themes directly from the text rather than to impose categories drawn from existing theory (Hsieh & Shannon, 2005; Kondracki, Wellman, & Amundson, 2002; Roberts, 2001). However, Schilling (2006) notes that preliminary models, which may then be elaborated upon and changed as the analysis progresses, influence even data-driven approaches such as the current investigation. The transparency of the analysis is increased by explicitly referencing existing models, thereby both acknowledging the researcher's preconceptions about likely themes and also allowing themes to emerge directly from the text.

The researcher anticipates that self-reported reasons for concealing suicidal thoughts will reflect both internal motivations, such as feelings of shame, and external motivations, such as fear of consequences that may result from telling others. Attitudinal factors, such as shame or mistrust, are expected to emerge more frequently than structural factors, such as lack of access. Results from the single study to have queried adolescents' reasons for concealing their suicide ideation from informal help sources suggest that even among low-income adolescents in a rural area, attitudinal factors are primary and include feelings of shame, fear of stigma and consequences, lack of a perceived need for help, and a desire to be self-reliant (Freedenthal & Stiffman, 2007). Although these reasons were generated by a relatively small sample of American Indian adolescents, many themes may be similar to those given by a national sample of college students, while others may be culture- and context-specific (Cauce et al., 2002).

Reasons for self-concealment may echo factors that are associated with the development of suicide ideation, such as themes related to feelings of isolation (Joiner, 2005; Joiner & Rudd, 1996b; Skogman & Öjehagen, 2003), stigma (Carlton & Deane, 2000; Deane & Chamberlain, 1994), and perceptions of being a burden on other people (Joiner et al., 2002a; Wingate et al., 2004; Van Orden et al., 2006). Additionally, it is expected that several reasons will emerge that are unique to college life, such as the role of potential academic or judicial consequences. The question of which reasons are most common is included in order to focus future research and policy on those areas that impact the greatest number of individuals.

Research question 4.

Question: Do self-reported reasons for concealing ideation vary according to gender, race/ethnicity, sexual orientation, or undergraduate versus graduate student status?

Rationale: Stigma has been identified as an influential factor in discouraging help seeking by both men and women (Broadhurst, 2003; Freedenthal & Stiffman, 2007; Kuhl et al., 1997; Nada-Raja et al., 2003), but the deterrent effects of stigma may be stronger for men (Addis & Mahalik, 2003; Gilchrist & Sullivan, 2006). Therefore gender differences may emerge regarding the frequency of reasons that concern fear of shame, stigma, or judgment. No existing research or theory suggests that student status, sexual orientation or racial/ethnic identity would contribute to differences in reasons for concealing suicide ideation from informal sources. However, it is possible that graduate students, who are less likely to live in university housing than undergraduate students,

may be less likely to express concern about possible judicial or academic consequences. Culture-specific attitudes towards formal help seeking (Cauce et al., 2002) may contribute to greater endorsement of reasons related to fear of forced hospitalization or treatment among ethnic minority students. Concerns related to isolation (Martin & D'Augelli, 2003) and stigma (Ciro et al., 2005) may be particularly salient for lesbian, gay, and questioning students.

Research question 5.

Question: After controlling for demographic characteristics, are certain reasons for self-concealment associated with greater odds of attempting suicide?

Rationale: According to Joiner's (2005) interpersonal-psychological theory of suicide, the desire for death arises when individuals do not have a sense of social belonging, which could result in the perception of having no available confidants (Heisel et al., 2003; Joiner, 2005; Trout, 1980; Westefeld et al., 2005). Additionally, the perception of being a burden to others has been found to predict greater lethality of methods among attempters and increased suicidality among ideators (Joiner et al., 2002; Van Orden et al., 2006; Van Orden et al., 2005). Therefore, students who endorse reasons that relate to not wanting to burden others could be at increased risk of attempting suicide, along with those who endorse reasons related to not having an available confidante.

Additionally, reasons relating to a perceived lack of need for help may be associated with reduced odds of attempting suicide. Individuals are believed to be capable of accurately assessing and reporting their risk for suicide (Michel et al., 2002;

Michel et al., 1994; Skogman & Öjehagen, 2003; Wingate et al., 2004) and thus students who conceal their ideation due to a lack of perceived seriousness or risk may be less likely to attempt suicide.

Chapter Three: Methods

The present study is an analysis of archival survey data, collected in the spring of 2006 as part of an 89-item study of suicide ideation titled The Nature of Suicidal Crises in College Students. The implementation of the survey was made possible through the collaboration of the National Research Consortium of Counseling Centers in Higher Education. This organization was founded in 1991 and is based at the Counseling and Mental Health Center at the University of Texas at Austin. The survey was administered online in order to provide complete anonymity for the participants and to obtain the largest and most geographically diverse sample possible.

Participants

Whole sample of survey respondents.

A stratified random sample of approximately 108,500 students across 70 participating U.S. colleges and universities was selected to receive an invitation to participate in the online survey. For the 58 campuses with 5,000 or more undergraduates, 1,000 students were randomly selected; for the 12 campuses with 500 to 4,999 undergraduates, 500 students were randomly selected. The same sample size guidelines were used to select graduate students. The undergraduate and graduate student response rates were 24% (15,010/62,000) and 25% (11,441/46,536), respectively, resulting in a combined sample size of 26,451 students who responded to the survey.

Participating institutions were representative of U.S. colleges and universities. The size of the participating institutions ranged from 820 to 58,156 students, with an

inter-quartile range of 9,347 to 23,711 and a mean size of 17,752 students. Thirty-eight percent of the colleges and universities were private institutions, and 72% were public institutions. The majority of institutions enrolled both graduate and undergraduate students; just four schools enrolled undergraduates only. The sample included geographic diversity of institutions, with 20% of the schools located in the Northeast, 20% in the West, 30% in the Midwest and 30% in the South.

Among the 15,010 undergraduates who responded to the survey, 62.2% were female. Racial/ethnic composition was as follows: 78.9% European American/White; 6.0% Asian American; 4.9% Hispanic American/Latino; 3.9% African American/Black; 4.0% Multiracial; 1.9% International; and 0.4% Alaska Native/American Indian. Ninety-five percent of the sample described their sexual orientation as heterosexual, 2.2% as bisexual, 1.8% as homosexual, and 1.3% as questioning. The average age was 22 years old with an inter-quartile range of 19 to 22 years, and the sample was divided evenly across class years with 22.4% first-years, 22.2% sophomores, 25.8% juniors and 28.5% seniors.

Among the 11,441 graduate students in this sample, 59.6% were female. The racial/ethnic composition was: 72.3% European American/White; 4.4% Asian American; 4.5% Hispanic American/Latino; 4.1% African American/Black; 3.5% Multiracial; 10.8% International; and 0.4% Alaska Native/American Indian. Ninety-four percent described their sexual orientation as heterosexual, 2.2% as bisexual, 2.7% as homosexual, and 0.7% as questioning. The average age was 30 years old, with an inter-quartile range of 24 to 32 years old.

Ideator sample.

The present study examines two samples that are sub-groups of the participants described above. The *Ideator* sample consists of the 1,321 students who reported having seriously considered suicide within the past 12 months. This sample will be used to answer the first and second research questions. Of this sample, 66.1% were female. Racial/ethnic composition was as follows: 76.6% European American/White; 5.0% Asian American; 4.5% Hispanic American/Latino; 4.2% African American/Black; 5.0% Multiracial; 3.7% International; and 0.8% Alaska Native/American Indian. Eighty-six percent described their sexual orientation as heterosexual, 6.9% as bisexual, 3.9% as homosexual, and 2.6% as questioning. The average age was 24 years old.

Concealer sample.

The third, fourth and fifth research questions involve only the *Concealer* sample, which consists of the 558 students in the *Ideator* sample who both reported that they did not tell anyone about their suicidal thinking and also provided a reason for concealing their suicidality. Of the 594 students who did not tell anyone about their suicidal thoughts in the past twelve months, 38 did not provide a reason for concealing their suicide ideation, and thus were not included in the present analyses. Of the *Concealer* sample, 60.4% were female. Racial/ethnic composition was as follows: 77.8% European American/White; 5.4% Asian American; 3.4% Hispanic American/Latino; 4.1% African American/Black; 5.6% Multiracial; 2.7% International; and 0.9% Alaska Native/American Indian. Eighty-seven percent described their sexual orientation as

heterosexual, 4.8% as bisexual, 3.9% as homosexual, and 4.1% as questioning. The average age was 24 years old.

Data Collection Procedures

Original data collection.

Before initiating data collection, a research proposal and draft of the survey, including informed consent and treatment referral procedures, were submitted to and approved by the Institutional Review Board of the University of Texas at Austin. Randomly selected students at each participating institution were sent an email invitation from their local campus counseling center containing information about the study. Recipients were given an incentive to participate, consisting of the opportunity to be randomly selected to win one of 100 gift certificates from Amazon.com or a grand prize award of a $1000, $750, or $500 gift certificate from Amazon.com. The invitation specified that the study was being conducted by the University of Texas at Austin, but was sponsored and supported by the local campus. The email invitation included a link to an online survey web page, which was customized with the institutions' colors and logo.

After reading the study information and consent form (see Appendix A), students either declined or consented to participate. Participation in the survey took approximately five minutes for participants who did not report serious suicide ideation in the past twelve months, and approximately fifteen to twenty minutes for those who did. Participants were allowed to skip questions and to withdraw from the survey at any point. Randomly generated identification numbers were used so that no identifying information could be

connected to any participant's responses. When participants declined to participate or exited the survey at any point, including completion, they were provided with information about their campus' counseling center services and other local mental health and emergency contact information.

Approvals obtained for the current study.

Prior to beginning data analysis for the current study, a petition detailing the purpose and methods of the proposed project was submitted to Chris Brownson, PhD, director of the National Research Consortium of Counseling Centers in Higher Education. Approval to use the de-identified data for the proposed project was received via email communication on February 26, 2009. Review and approval by the Institutional Review Board for the Protection of Human Subjects at the University of Texas at Austin was obtained on March 2, 2009. Because the present study employs de-identified archival data from a larger study that had been previously approved by the committee, it was determined that additional review was not necessary.

Measures

The Nature of Suicidal Crises in College Students is an 89-item survey consisting of 66 forced-choice items and sub-items, 35 Likert-type scale items and sub-items, 5 items for which multiple response options could be selected, and 32 open-ended text response items and sub-items. The length of the survey was intended to elicit thorough contemplation by the participants of their experiences of suicidal thinking, thus increasing the accuracy and meaningfulness of their self-report. Directors of each

participating counseling center were invited to propose potential survey items or topic areas to be covered. The proposals were collected and integrated by the directors of the National Research Consortium. All consortium members then reviewed the completed survey items. Two prominent experts in the field of college suicidality, Allan J. Schwartz, PhD, and M. David Rudd, PhD, also reviewed the completed survey. Survey items relevant to the current study are available in Appendix B. The survey was broadly divided into three sections.

Demographic information collected from all participants.

Questions in the first section were answered by all respondents and included demographic information and questions about lifetime experiences with suicidal thinking. Demographic variables used in the current study are student status, gender, race/ethnicity, and sexual orientation. Each participant's institution automatically provided student status, which was reported as either undergraduate or graduate student. Gender was determined by the participant's response to item 2, which provided a forced choice between "Male" and "Female." Racial/ethnic information was collected from item 3, which asked that participants select all descriptions that applied to them from the following categories: "African American/Black;" "Alaska Native/American Indian;" "Asian American;" "Caucasian/White;" "Hispanic American/Latino;" and "International/Foreign Student." For the purpose of further analysis, participants who selected more than one racial or ethnic descriptor were classified as multiracial. Sexual orientation was determined from item 17, which asked *"What is your sexual*

orientation?" and provided four response options: "Bisexual," "Gay/Lesbian," "Heterosexual," and "Questioning."

Participants then responded to questions regarding their history of mental health problems, help seeking, suicidal thoughts, and suicidal behaviors. Recent ideator status was assessed by item 29: "*during the past twelve months, have you seriously considered attempting suicide?"* Only students who endorsed this item continued to the second section of the survey, and these students constitute the *Ideator* sample for the current study.

Information about recent suicidal crises.

The second section of the survey asked a variety of depth-oriented questions regarding the participant's experience of a serious suicidal crisis within the past twelve months. Concealer status was determined by the participant's response to item 38: "*In times of suicidal crisis, people sometimes turn to others for support. After first recognizing that you were seriously considering attempting suicide, how many people did you tell about these thoughts?"* Participants were required to choose one of the following options: "One," "Two," "Three or more," and "I did not tell anyone." Participants who selected the response option "I did not tell anyone" were then asked item 42: "*Why did you decide not to tell anyone about your thoughts?"* Participants responded to item 42 by typing their response into a text box with no word limit. The students who reported that they did not tell anyone about their suicidal thoughts and who subsequently provided a response to item 42 constitute the *Concealer* sample for the current study.

The survey continued with questions regarding the utilization and reported helpfulness of various sources of support, and the self-reported mood states and contributing factors that contributed to the suicidal crisis. Finally, participants were asked item 62: "*Have you attempted suicide within the last 12 months?"* Participants were required to select either "Yes" or "No," and this dichotomous outcome determined Attempter status. Only students who had attempted suicide within the past twelve months continued to the third section of the survey, which repeated many of the questions that were previously asked about the suicidal crisis with regards to the suicide attempt. These items are not pertinent to the current study.

Data Analysis Procedures

Protocol for categorizing reasons for concealment.

In order to understand students' subjective motivations for concealing their suicide ideation (research question 3), participants who seriously considered attempting suicide within the past 12 months and did not tell anyone about their suicidal thoughts were asked to respond to the following question (item 42): "*Why did you decide not to tell anyone about your thoughts?"* A coding protocol was developed in order to thematically categorize these open-ended responses. The protocol was developed according to the principles of representational thematic text analysis, which is a subtype of qualitative content analysis in which the categories are intended to emerge directly from the data rather than from the researchers' preconceptions (Roberts, 2001). Qualitative content analysis is defined as "a research method for the subjective

interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns" (Hsieh & Shannon, 2005, p. 1278). This method is appropriate for open-ended survey questions, allows for the quantitative analysis of qualitative data, and is particularly helpful when the existing literature on the phenomena under study is limited (Hsieh & Shannon, 2005; Kondracki et al., 2002).

The success of content analysis, or its "trustworthiness," relies upon the validity and reliability of the coding process (Hsieh & Shannon, 2005). Therefore a detailed description of the processes for developing the coding schema and for assessing inter-coder reliability is provided. First, a team consisting of the primary investigator and two graduate research assistants with expertise in college student suicidality, Martin Becker, J.D., and Elaine Hess, B.B.A., independently read through the qualitative responses for overall meaning and wrote notes about recurring themes. The instructions for the first phase of coding and an example coding sheet are available in Appendix C.

Using procedures similar to those used by Rew, Rochlen and Murphy (2008), the three-person team independently developed flexible initial codes to identify preliminary categories. Team members revised these working categories as patterns in the data became clearer (Conger, 1998; Creswell, 1994; Miles & Huberman, 1994). During this process team members were encouraged to consider Krippendorf's (2004) recommendations that code categories reflect the purpose of the research, be exhaustive, and be mutually exclusive. Mutual exclusivity was particularly important because the data was intended for use in subsequent quantitative analyses. Throughout the process of developing code categories, team members demarcated distinct thematic units when

multiple themes appeared to be present within a single response. Incoherent responses or those that could not be grouped with at least one other response were coded as "other."

After 30% of the data was coded independently in this manner, the team met to discuss emerging code categories. Through a process of discussion, overlapping categories were condensed and a list of eleven preliminary categories was agreed upon, with the understanding that further coding would likely result in changes to this list. Following Schilling's approach (2006), the team then collaboratively reviewed all responses and reached consensus regarding the demarcation and categorization of thematic units. Examples were selected for each preliminary category and flexible guidelines for the process and rules of data analysis were established to guide subsequent decisions (Krippendorf, 2004).

The team members then independently coded another 30% of the data before meeting again to review the appropriateness of the code categories and to refine the guidelines regarding inclusion and exclusion for each category (Cavanagh, 1997; Schilling, 2006). Through discussion, consensus was reached regarding ten final code categories and the categorization of responses. After independently coding the remaining 40% of the data, a final meeting was held in which any remaining cases of disagreement were resolved through discussion, and the category names were reviewed for clarity.

Throughout the coding process, the resolution of disagreements was guided by the principles of representational thematic text analysis (Roberts, 2001). The explicit goal set forth by the coders was to keep interpretations as close to the literal text as possible. Due to the inherent subjectivity of the written responses, however, inferences were necessary

to categorize some responses. For example, in the response "Because I knew they would go away and I didn't want to scare them,*"* the coders inferred that "they" referred to the suicidal thoughts and "them" referred to the potential confidants. Although it is possible that this reading misinterprets the respondent's intent, it was considered to be a reasonable degree of inference, particularly given that the three coders were in agreement.

However, in cases requiring a greater degree of inference and where consensus was not easily reached, the response was coded "Other" in order to avoid what was considered to be an unacceptable likelihood of misinterpretation. For example, the incomplete response "*because I thought no one ca"* was coded as "other" because multiple interpretations, such as the respondent thought no one cares or no one can help, seemed equally likely.

The coding team collaboratively established guidelines for determining the presence of multiple themes within a single response. Multiple themes were only considered if the secondary theme was clearly distinct from the first theme. Grammatical indicators such as commas and conjunctions provided cues to the possibility of multiple themes. The "other" category applied only as a primary theme; if part of the response was already coded into one of the nine content categories, extraneous information in the response that did not directly answer the question "*Why did you decide not to tell anyone about your thoughts?"* was ignored.

In addition to coding for thematic content, the coding team explored, but ultimately rejected, the potential usefulness of coding for higher order themes. For

example, after noting that some responses communicated significant levels of hostility, the team reviewed the entire dataset to assess whether the presence or absence of hostility constituted a viable super-ordinate code. However, it was determined that there were so few responses containing hostility (approximately 1% of the total number of responses) that coding for hostility was neither practical nor likely to be reliable due to the subjectivity required to infer emotional tone from text. Other higher order concepts that the team considered were: specificity versus generality of the response; suicidal thinking as ego-syntonic versus ego-dystonic; and passive versus active concealment. These coding concepts were ultimately discarded due to the high degree of inference required, but they may represent interesting possibilities for future research in this area.

After the coding was completed, the primary investigator formalized a coding schema (see Appendix D) with detailed coding procedures, descriptions of each category, rules for decision-making, and three representative quotes for each category. After the coding schema was reviewed by Becker and Hess, two auditors with considerable expertise in college student suicidality, David Drum, PhD, and Chris Brownson, PhD, reviewed the coding schema and the categories for face validity.

Reliability coding and assessment.

Two counseling psychology graduate students without prior research experience in the field of college student suicidality, Katie Dahm, M.S., and Crystal Lantrip, B.S., were recruited for the purpose of reliability coding. Before beginning reliability coding, both coders were informed of the topic of the research and were given estimates regarding the anticipated time required to complete the coding. In order to reduce strain

on these coders, each was responsible for coding only half the dataset. For the purposes of assessing reliability, their codes were compared to the consensus codes of the team that developed the coding schema.

In an initial one-hour training meeting, the reliability coders were provided with both paper and electronic copies of the coding schema. They were encouraged to read carefully through the coding schema document, and clarification was provided in response to their questions. Each coder practiced with fifteen items selected randomly from the other coder's set of responses, and feedback was given about any incorrect codes. Once both coders expressed clarity regarding the coding rules and procedures, each was provided with both an electronic and a paper copy of the first 55 responses (20%) of their respective portions of the data set. Coders were instructed to work independently.

Following procedures used by Tsai, Mortensen, Wong and Hess (2002), Cohen's kappa (*k*) was calculated after the initial 20% of the data had been coded in order to assess formative reliability. Procedures were pre-established that if any coder obtained $k < .70$, reliability would be deemed insufficient and the coder(s) would receive further training for problematic code categories and would re-code all responses (Tsai et al., 2002). Both coders demonstrated adequate reliability during the formative reliability check, and were provided with the remaining portion (200 responses) of their data set.

Once the entire data set was independently coded, reliability was assessed with both Cohen's *k* and Krippendorff's alpha (α) so that the advantages of each may supplement their respective weaknesses (Lombard, Snyder-Duch, & Bracker, 2008,

section 5). Cohen's *k* is more recognizable than Krippendorff's α, and has been referred to as the "measure of choice" by some researchers (eg Dewey, 1983). Cohen's *k* is more conservative than percent agreement because it adjusts for chance agreement, as does Krippendorff's α. However, Krippendorff (2004) has argued that *k* is inappropriate as a measure of reliability because it does not account for disagreements due to coders' proclivity to use categories differently. Furthermore, Krippendorff's α offers the benefits of being well-regarded by methodologists and flexible enough to be used with more than two coders and different types of data (Lombard, Snyder-Duch, & Bracker, 2008, section 5). The primary disadvantage to Krippendorff's α, apart from being less widely known, is that it is difficult to calculate, which is why *k* was used for formative reliability checks. Despite widespread use, percent agreement has been consistently found by the methodological literature to give an overestimate of reliability (Lombard, Snyder-Duch, & Bracker, 2008, section 5), and therefore was not reported.

Levels of acceptable reliability were pre-established at .80 for α coefficients (Krippendorff, 2004) and .70 for *k* coefficients (Tsai, Mortensen, Wong & Hess, 2002). Cohen's *k* was calculated using SPSS Statistics version 16 (SPSS Inc., 2008), and Krippendorff's *a* was calculated using the macro for SPSS developed by Hayes and Krippendorff (2007). Reliability was determined to be both good ($k = .872$, $a = .8725$) and consistent across the two measures. The original consensus codes of the team that developed the coding schema were used in subsequent quantitative analyses.

Quantitative analyses.

Preliminary analyses were conducted using SPSS Statistics version 16.0 (SPSS Inc., 2008) to examine the data and to identify which variables to include in final models. Tests of significance were accomplished using hierarchical linear modeling (HLM 6; Raudenbush, Bryk, & Congdon, 2004), which is an extension of multiple regression that can appropriately handle the sampling framework and categorical outcome variables used in the current study. Multilevel modeling provides the ability to control for possible effects of clustering that may result from students being grouped within schools, which would otherwise violate the independence assumption required of multiple regression. Following recommendations by Raudenbush (1993), students were considered to be level-1 units that were nested within their respective schools (level-2 units).

Because the purpose of these analyses was to examine the relationship between student characteristics and concealment motives and outcomes, only level-1 predictors were of interest. Logistic multilevel modeling was exclusively used due to the dichotomous nature of all dependent variables of interest. Logistic modeling provides more flexibility than other regression techniques in that it does not require assumptions of normal distribution, linear relationships, or equal variance within each group to be met (Raudenbush & Bryk, 2002). Logistic modeling provides the ability to predict a discrete outcome from variables that may be continuous, multinomial, dichotomous, or some combination. As explanatory variables are added to the model, the interpretation extends beyond the probability of a given outcome and instead reflects the odds of the outcome for each predictor variable.

Chapter Four: Findings

Content Analysis Results

Structure of the qualitative data.

Of the 594 students who reported that they did not tell anyone about their suicidal thoughts, 558 students (94%) provided a response to the open-ended question "*Why did you decide not to tell anyone about your thoughts?"* Of those 558 responses, 68% contained only one distinct reason for concealing suicidal ideation. The other 178 responses contained up to five separate thematic units pertaining to the student's reasons for concealing his or her suicidal thoughts. Among the responses with multiple themes, 73% had two distinct themes, and only a single response contained five themes.

Thus, across the 558 responses, 769 total thematic units were recorded. These meaning units were categorized into nine content categories and one "other" category for the 13 responses that did not provide an interpretable answer to the question "*Why did you decide not to tell anyone about your thoughts?"* The distribution of the 769 meaning units across the ten categories, outlining the results for research question 3, is presented in Table 4.1.

Category descriptions.

The following sections describe the core focus and sub-themes for each category and provide examples of responses in each category. Categories are described in the order of most frequently endorsed to least frequently endorsed.

Table 4.1
Frequencies of Self-reported Reasons for Concealing Suicidal Thoughts

Theme	Frequency (N = 769)	Percent
Low Risk	139	18%
Solicitude	122	16%
Privacy	118	15%
Pointless	102	13%
Stigma	102	13%
Shame	56	7%
Repercussions	54	7%
Interference	51	7%
Perceived Lack of Confidants	25	3%
Other	13	1%

Low Risk.

The most commonly endorsed reason for concealing one's suicidal thoughts was that the respondent perceived him or herself to be at low risk for attempting or completing suicide. While many of the responses in this category explicitly noted a lack of need to share the suicidal thoughts with others, all responses conveyed an implicit suggestion that there was no need to tell people about the suicidal thoughts *because* it was unlikely that any suicidal action would follow. Responses in this category expressed one or more of the following sub-themes: the suicidal thoughts were transient in nature; the thoughts lacked seriousness or intensity; and the student was resolved against attempting suicide, irrespective of the strength of the suicidal thoughts.

Transience of the suicidal thinking was expressed in responses such as "the thought only lasted a moment," and "I knew they would pass." Many responses referenced prior experience with suicidality that had informed the student's expectation

that the thoughts would be fleeting. For example, one student responded "I hoped that they would just go away on their own as they have in the past." Low acuity of the suicidal thoughts was indicated in responses such as "because I realized I was being irrational," and "I didn't feel that they were that serious." Other responses implied low acuity by minimizing the reality of the suicidal thinking, such as in the responses "I was drunk," and "I was just being a drama queen because something bad happened in my life."

Another type of response in the Low Risk category indicated that, regardless of how strong or compelling the suicidal thoughts were, the respondent was certain that he or she would not follow through with suicidal action. Some of these responses identified proscription against suicidal action based on fear, such as "my own thoughts scared me so much that I decided that I did not want to take my own life." Others referenced lessons learned from prior suicidal experiences: "I attempted suicide three years ago and I had to completely start my life over again. I never want to let myself be a position like that again." Many responses referenced the student's moral or religious convictions against suicidal action, such as in the response "I wouldn't be morally okay with a suicidal decision anyway." The response below expresses several of these themes, including the recurrent, transient nature of the suicidal ideation, and both moral and religious proscriptions against suicidal action.

> I have had recurring suicidal depression since early adolescence; it occurs several times a year and tends to pass within 10-14 days. I am strongly religious and that has kept me from taking any physical steps toward an attempt; also I could not

leave my younger brother and sisters with the guilt of dealing with an older brother who took his own life. I prefer quiet desperation to irresponsibility.

Although this category is labeled Low Risk to reflect the student's perception that suicidal action was unlikely, it should be noted that the inclusion of a response in this category does not necessarily indicate that the student has reduced future risk for attempting or dying from suicide. The fact that many of these students referenced chronic suicidality and prior attempts suggests elevated long-term risk for suicide completion (Joiner et al., 2005; Schwartz, 2006b.) Thus, the category label was selected as a representation of students' subjective experiences and their motivations for concealing suicidal ideation, rather than as a reflection of true risk status.

Solicitude.

Solicitude for the emotional well-being of others and concern for the potential negative impact that the disclosure of suicidal thoughts might have on them was the second most prevalent reason for concealing one's suicidal thoughts. Responses in this category included one or more of the following sub-themes: the expectation that others would be burdened by the disclosure; concern that the disclosure would elicit an adverse emotional reaction such as worry or hurt; and desire to protect others from guilt in the event of a completed suicide.

Many of the responses in this category indicated that the respondent believed that other people would feel burdened or overwhelmed by knowledge of his or her suicidality. One student referred to the disclosure as "too much of a burden," while another expressed the belief that "the issues were mine and dumping them on other people would not have

been fair to them." Several responses reflected the student's conviction that it would be selfish and inappropriate to add the disclosure of his or her struggles with suicidality to other peoples' concerns. Other responses indicated that the student "did not want to bother anyone" by talking about the suicidal thoughts.

The second type of response in this category focused on a range of negative emotions that the disclosure of one's suicidal thoughts might elicit in the chosen confidant(s), such as feelings of hurt, worry, fear, or discomfort. For example, one respondent said "I did not want to scare anyone (family) by telling them I have been struggling again, I know how bad it can get." Other students believed that "it would hurt them" because their friends and family would feel upset and perhaps guilty to discover the degree of pain and distress that the student had been enduring without their knowledge. Several responses revealed that the suicidal student felt pressure to care for the emotional needs of others, such as in the response below.

> I'm the person that my friends and family rely on when they are in a bad spot -- I appear to have it together and live as if I have no worries so I constantly have to be a support for other people. When I was a teen and first attempted suicide, I upset a lot of people because of my actions … Now everyone thinks it was just a normal teenage phase and that I outgrew the depression and suicidal ideations -- I don't want to worry anyone.

While it was rarely explicitly stated, many of these responses implied that the student either did not believe that his or her concerns were important enough to trouble others, or that as a person he or she did not merit the expense of time and emotional energy, such as

in the response "wasn't worth their worry." Responses in the Solicitude category therefore reflected both concern and self-sacrifice for the well-being of others, and unwillingness to prioritize one's own well-being.

The third type of response in the Solicitude category indicated that the student wished to spare others any feelings of guilt or responsibility that might result from knowing about the student's suicidality in advance of his or her death. For example, one student stated

> if i were to do it, i would rather have it on my own conscience rather than telling a friend then doing it and having that friend question his or her decision of not to telling [*sic*] for the rest of their life. That is the kind of thing that can haunt peoples [*sic*] dreams.

Similar responses expressed the intention to make the suicide appear to be an accident in order to spare the feelings of the people left behind. Concern for others as a reason to conceal suicidality expressed in the Solicitude category is therefore different from the concern for others as a reason not to attempt suicide referenced in some Low Risk responses. The seriousness of the suicidal thoughts appeared to vary widely among the responses in the Solicitude category, but the motivation to conceal the suicidal struggles in order to protect the emotional well-being of others was consistent throughout the category.

Privacy.

The Privacy category captured the student's sense of him or herself as a fundamentally private and self-sufficient person. Responses in this category indicated that it is in the student's nature to keep a boundary around his or her private concerns and not to readily admit others to his or her confidence. This category maps closely onto Larson and Chastain's (1990) *self-concealment* construct, because it reflects a basic tendency to conceal personal information from others, rather than a situation-specific reason to conceal suicidal thoughts. Responses in this category contained one or more of the following sub-themes: self-concealment as a personality trait and self-protective strategy; intolerance for the discomfort of talking about the feelings or having others know about them; desire to avoid drawing attention or sympathy from others; and self-sufficiency and pride in solving personal problems independently.

Many responses in this category revealed the student's self-awareness of privacy as a personality trait, such as "I choose to keep my feelings to myself always have always will," and "I am a private person." In some cases the personal boundary was aggressively defended, such as in the response "it's none of their fucking business." In other responses, such as the one below, students explicitly referenced feelings of mistrust and danger in revealing oneself to other people:

> I hate to open up to people. I hate being vulnerable like that... it's much easier and far, far more secure to keep my thoughts/feelings to myself than expose myself to another person.

The Privacy category also included general statements about not wanting others to know about the suicidal thinking and not wanting to talk about it. Responses that merely stated "I didn't want anyone to know," without providing any further rationale for concealing one's suicidal thoughts were coded as Privacy. Other responses with a similar theme noted that the respondent believed that it would be too uncomfortable, awkward, or difficult to share such personal information with others. Examples of this type of response are "I don't feel comfortable doing that," and "I do not like talking about it." This discomfort was often experienced as lack of ability to tolerate such a discussion, as reflected in the response "I just couldn't."

A third type of response in this category focused on the student's desire to avoid being the focus of attention, such as in the response "I didn't want their sympathy," and "didn't want to draw attention to myself." These students expressed a preference for being left to themselves, without intrusion upon their personal boundaries even by concern or sympathy. For example, one student responded "I know that I would have much rather been another face in the crowd rather than have that kind of attention."

The fourth type of response in this category highlighted the student's pride in being self-sufficient and his or her desire to solve problems independently of help from others. These responses indicated that the student generally prefers to cope with difficult things by turning inward rather than outward, such as "I like to deal with problems myself, and don't want to involve others," and "I was able to cope on my own." A sense of possessiveness regarding "my business" distinguished responses in the Privacy category, such as "my thoughts are for myself" and "my problem" from the concerns

about burdening others with one's problems that were coded as Solicitude. Many of these responses indicated that, regardless of whether the student eventually overcame the suicidal distress or chose to attempt suicide, the decision-making process would occur without consulting others. The idea of dealing with one's suicidality alone was frequently accompanied by a sense of pride, such as in the pithy response "I'm tough."

Pointless.

Responses in the Pointless category indicated that the student believed that telling others would not be helpful. This category contained the greatest thematic diversity of responses, but all responses in the category reflected the conviction that disclosing one's suicidal thinking would be useless and might even result in feeling worse. Responses in this category contained one or more of the following sub-themes: doubt that other people would care, understand, or take the suicidal concerns seriously; belief that help offered by others would not be useful; desire for others to notice one's distress without needing to be told; and perception of pointlessness based on prior, unsuccessful experiences of seeking help.

The majority of responses in this category reflected the student's expectation that other people would fail to understand or take them seriously if they disclosed that they had been contemplating suicide. A typical example of this type of response is "I didn't think that anyone would truly understand. They would most likely tell me to shrug it off because it wasn't a big deal." Many students expressed the belief that suicide is considered "cliché" or "dramatic," as in the response "people these days think you are trying to get attention and are being overdramatic if you tell them." Another student

stated “I knew that nobody would take me seriously unless I actually did kill myself.” These students perceived suicidal expressions to be so commonplace that they would be minimized or ignored. A related motivation for concealing one’s suicidality was the student’s assumption that even if people did take the suicidal thoughts seriously, they wouldn’t care. This belief is evident in the responses “I did not think anyone would really care or listen to me” and “because I don't think anyone would care. I knew they would try to stop me, but they would not listen and try to help me, just try to stop me.”

Another type of response in the Pointless category reflected the belief that even if others cared and took the suicidal disclosure seriously, they would still not be able to offer any useful help. For example, one student simply said, “I don't think anyone could really help,” while another elaborated,

> I didn't want anyone to say No, don't do that cause in my mind all they care about is themselves, and not me, not really me. The reasons for my wanting to do this they didn't want to talk about, or hear about, so why go to them when the problems make me want to end it all.

Some of the responses in this sub-theme indicated that, aside from not being helpful, students believed that it might actually be harmful to talk about their suicidal thoughts. For example, one student stated “[I] just decided to forget them and thought talking about it would reinforce the thoughts in my mind, I forced them out and let go of the intruding nature the thoughts have.” From this perspective, disclosing one’s suicidal thoughts to other people would be ineffective at best, and at worst might strengthen the suicidality.

Another sub-group of responses reflected the student's expectation that other people should have noticed how much distress he or she was experiencing and reached out accordingly, without waiting for the student to go to them. These students believed that if others do not even recognize his or her suffering, then they do not deserve to know and would not likely be helpful. An example of this type of reasoning is reflected in the following response:

> I've had those sort of thoughts before and no one ever noticed. The fact that your best friends can't tell what is going on just makes it seem like it isn't worth bothering to tell them. If they don't know then they don't deserve to know sort of thing.

In this case, the student's perception that others failed to demonstrate sensitivity to his or her distress motivated the student to continue concealing the suicidal thoughts.

The fourth type of response in the Pointless category focused on the role of prior, failed attempts to communicate the suicidal thoughts to others. The expectation that seeking help would be pointless in the current episode of suicidality was informed by the lack of responsiveness or helpfulness that followed previous efforts at reaching out. Many of these students indicated that they had given hints of their suicidality without being explicit, such as in the response "I tried sending messages like I think you'll be better off without me... etc. but never specifically that I intended something." Others may have directly talked about their suicidality, but found that others did not take their statements seriously. For example, one student responded "I have alluded to my thoughts but people think that I am talking exaggeratingly like 'oh I want to kill myself' because

they use the phrase when they are upset at something silly." Finally, some students actually did try to seek help for either a recent or past suicidal crisis. The failure of the confidant to respond helpfully or appropriately informed the student's decision to conceal the current episode of suicidality, as reflected in the response below.

> When I attempted suicide at 15 I didn't receive help when I asked my mother for a ride to the hospital because she was afraid I would be removed by DHS. I figured there was no point in telling anyone about my thoughts because it was up to me to fix.

Stigma.

The Stigma category captured the student's belief that disclosing his or her suicidal thoughts would cause others to negatively evaluate him or her. These responses focused on the thoughts, feelings, and behavioral reactions that others might have regarding the disclosure of suicidality. In addition to fears of being stigmatized for having mental health problems, responses mentioned a range of anticipated negative reactions from others such as rejecting, fearing, blaming, judging, or otherwise treating the student differently. Fear of stigma could also be implied rather than directly stated, such as in responses that expressed a desire to maintain a certain persona in front of others. Rather than focusing on the student's personal evaluation of having suicidal thoughts, responses in this category focused on the assumed perceptions and anticipated negative evaluations of others. The responses included one or more of the following sub-themes: stigma attached to suicide/mental health issues; punitive responses expected from others; and desire to maintain a positive public image.

The majority of the responses in the Stigma category referenced ideas about stigma or negative associations that other people would have regarding suicidality, depression, or other mental health problems. Many of these students anticipated that if they told someone that they were thinking about suicide, the confidant would think that they were weird, weak, or unstable. One student stated "I didn't want people to think I was a freak," while another elaborated on the idea with the response "there is such a stigma associated with depression, and I don't want that following me around if I didn't go through with it." Many students expected that others would begin to treat them differently, which might include avoiding them or being afraid of them. For example, one student responded "I also felt they would treat me differently if they knew, as if I were defective or volatile. The [*sic*] probably would have had a negative stigma associated with people who have such feelings." The following response emphasizes the anticipated harm that would result from disclosing one's suicidal thoughts, particularly if one survived the suicide attempt:

> Because informing others of your depression and suicidal thoughts inevitably will attach negative stigmas to you. Quite frankly, when you feel already worthless, you don't want others to think even less of you and to feel even worse about yourself in the event that you don't actually die.

A second sub-theme for responses in the Stigma category focused on the anticipation of punitive reactions from other people. These students believed that disclosing their suicidal thoughts might evoke outright hostility, criticism, or blame. For example, one student responded "I din't [*sic*] feel like being critisized [*sic*] for being

selfish or stupid. I was pretty sure if I told anyone, they would belittle me for considering this as an option, and tell me they expected better of me." Some students mentioned moral or religious prohibitions against suicide that, instead of being protective against attempting suicide, were expected to cause others to respond negatively. The following response suggests that the student believed he or she had crossed a line just by thinking about suicide, and would therefore be judged by others who shared his or her religious beliefs:

> Suicide is beyond question in my religion. We believe suicider [*sic*] goes to hell forever. If you consider it, you have lost all hope that God can/will ever help you. All of my friends are from the same religion and I did not want to tell anyone.

The third type of response in this category focused on the desire to maintain a specific public persona. Some students wanted to present an image of themselves as "normal," such as in the response "I didn't want to tell anyone because outwardly I seem like a completely normal person and I didn't wnat [*sic*] that image to be hurt." Other students were concerned with appearing strong, stable, or happy. For example, one student explained that she did not tell anyone about her suicidal thoughts "because I did not want anyone to think any differently of me. I wanted to be the same happy go lucky girl in their eyes that I have always been." As part of maintaining a certain image, several of these students also referenced not wanting to disappoint others by failing to live up their expectations.

Shame.

The Shame category is closely related to the Stigma category because it concerns negative evaluations of having suicidal thoughts. However, the focus of responses in the Shame category is on the student's personal, internal negative evaluation of his or her suicidality, rather than on the anticipated reactions of others. Discussion occurred among both the team that developed the code categories and the two expert auditors about the appropriateness of combining the Shame and Stigma categories. Consensus was reached that an internal focus on personal attitudes towards suicidality and the resulting feelings of shame was conceptually different from an external focus on the evaluations of others, and therefore warranted a separate category. Despite conceptual similarities, reliability coders were highly accurate in distinguishing between these two categories.

The responses in this category included one or both of two sub-themes: belief that having suicidal thoughts is weak or wrong; and adverse emotional reactions to having suicidal thoughts, such as embarrassment, shame or guilt. Responses were typically brief, with some consisting of just one or two words, such as "it's shameful," "embarrassment," and "guilt." Other responses elaborated somewhat, such as "I was ashamed to admit that I had these thoughts. Thoughts of suicide display a weakness in character." Another student stated, "I was ashamed that I would take the easy way out of life." Although personal evaluations of suicidality do not exist in a vacuum and are shaped by cultural beliefs and norms, the focus of these responses was the student's subjective experience. Feelings of shame or embarrassment, rather than concern for how the recipient of the disclosure would react, guided the decision to conceal the suicidal thoughts.

Repercussions.

Responses in this category focused on the tangible consequences that were expected to result from disclosing the suicidal thoughts. Most of these responses mentioned specific anticipated consequences, such as being forcibly hospitalized, expelled from school, or losing important relationships. Others referred to more general consequences. The anticipated repercussions of disclosing suicidal ideation included one or more of the following consequences: forced mental health treatment; academic setbacks or expulsion; loss of employment opportunities; loss of important relationships; loss of privacy or autonomy; and unspecified repercussions.

Many students indicated that they concealed their suicidal ideation because they did not want to be hospitalized or forced to see a psychiatrist or therapist. Several students specifically referenced the Baker Act or indicated that they were aware of the mental health professional's duty to report. One student said "If I told a therapist, they would send me away. I'm not stupid. I've been there before and its [*sic*] hell," while another referenced "fear of being committed to an asylum or to a psychologist" as the reason for concealing the suicidal thoughts. Several students mentioned the fear that they would be forced to take medication or undergo involuntary counseling.

Students also expressed the fear that they would be expelled from school or experience other academic consequences. One student reasoned "if you tell a school official, you could get in trouble and have to withdraw from school or have to deal with a lot of drama that you don't want to endure on top of all your other problems." Although this student did not think forced withdrawal was inevitable, as many others did, he or she

was convinced that there would be some disciplinary ramifications. Most responses included more than one feared consequence of disclosure, such as "I was afraid of the consequences that maybe I would be pulled out of school or placed in the hospital." Another student believe that it "would impinge on my acedemic [*sic*] progress." The following response reflects the student's conviction that the disclosure would impact multiple areas of his or her life at the university:

> If I told someone I would be ruined both academically and socially. A person's peers can either make your life fun or ruin it for the rest of your life. School systems claim to be anonymous, but you would be surprised the amount of information I have learned about other studens [*sic*] from inside sources. I will never trust the confidentiality [this] University is supposed to provide. [Identifying information removed]

Echoing this theme of the impact that betrayed confidentiality would have on academic and employment opportunities, several students expressed concern that they would lose their jobs if people discovered that they were considering suicide. For example, one student was deterred from seeking counseling through the student health center for the following reasons: "I used to work at the Health Center, so everyone would know if I went to the councellor [*sic*] and believe me, gossip spreads around there. I've wanted to but I can't, for the sake of my job(s)." Another student expressed concern about future career opportunities, worrying that "a history of Psychological problems could look bad when looking for a job or on other things in the future."

Another type of anticipated consequence was the loss of important social and familial relationships. Several students feared that telling someone about their suicidal thoughts would result in loss of child custody, such as in the response "they would take my children away from the family." Other students expressed a more general belief that such a disclosure would disrupt peer relationships: "if you tell a friend, they might get weirded out and not want to be your friend anymore. If you tell a significant other, they might dump you."

Many students expected or feared that their confidentiality would be violated if they told someone about their suicidal thoughts. One student expressed the fear that "they would tell my parents," while another stated "I did not want them to tell a counselor." A common accompanying fear was that the student would then lose some degree of autonomy, such as in the response "I was afraid that I would be put on a suicide watch." Another type of response referenced unspecified fears, such as "I felt that it would lead to bigger problems if I brought it up," and "I was scared of what would happen to me."

Interference.

Responses in this category focused on the student's desire to preserve his or her autonomy regarding the decision to attempt suicide. These students indicated that they chose to conceal their suicidal thoughts from others in order to avoid the interference or protestations that would likely result. While some of the responses indicated that the student had definitively resolved to attempt suicide, others focused on the desire to keep the option open without expressing a clear intention to make an attempt. Responses in this category included one or more of the following sub-themes: desire to maintain the

freedom to attempt suicide; negation of help that others might offer; and resolve to attempt suicide.

In some cases the student was concerned that others would intervene physically in order to prevent him or her from attempting suicide. This sentiment is reflected in the responses "if you want to kill yourself, why tell someone who will try to stop you?" and "I knew that if I got to the place where I would follow through with my plan, I wanted to succeed." Another response also referenced concern about the interference that would follow survival of an attempt: "[I] didn't need anyone getting in the way, or having to deal with anything about it from anyone else had something gone wrong."

In other cases the student wished to avoid having other people offer unwanted help and try to exert influence over his or her decision. For example, one student responded "I thought they would tell someone or try to talk me out of it. I wanted to be in control of what happened and not have others interfere." Another student stated "I was adamant in my feelings and did not want anyone to try to get me to change my mind." The importance of having control over oneself and one's choices is consistent throughout the responses in this category. Responses also reflected the belief that disclosing one's suicidal thoughts is incompatible with being genuinely suicidal, such as in the response below:

> Telling someone is a cry for help. If I'm going to commit suicide it is not a cry for help, it is killing myself. There is no need to tell someone so that I can have someone try to offer some sort of help I'm not seeking.

A minority of the responses in the Interference category seemed to indicate that the student had moved beyond the consideration of a suicide attempt and was now resolved on attempting suicide. For example, one student simply responded, "[I] figured they would understand once it happened." In these cases the perceived inevitability of the suicide attempt took precedence over the concern that others might intervene. Instead, the student's resolve to attempt suicide rendered any thought of telling others unnecessary.

Perceived Lack of Confidants.

Responses in this category reflected the student's perception that he or she lacked access to any appropriate or available confidant to whom he or she could disclose the suicidal thoughts. While some responses reflected the student's sense of true isolation, many responses acknowledged that there were people in the student's life who could have served as potential confidants. However, these people were rejected as unacceptable due to factors such as lack of sufficient trust, proximity, comfort, or availability. In contrast with the trait secrecy expressed in the Privacy category, many of these responses implied that if an appropriate confidant had been available, the student might have disclosed the suicidal thoughts. Three primary sub-themes comprised the responses in this category: a sense of true isolation; lack of sufficiently close or trusted confidants; and rejection of identified potential confidants.

A number of students indicated that they felt truly cut off from other people. Common responses expressed some variant of the idea that "I had no one to talk to" and "I felt very alone." Some responses directly connected the student's feelings of loneliness and isolation to the development of their suicidal ideation, such as "no one supported me

during the tough times, I felt alone. If friends were by my side from the beginning, I would not had [*sic*] felt so misserable [*sic*]." More commonly, however, students focused on a lack of sufficient closeness or trust that contributed to their sense of isolation. For example, the response "there wasn't anyone around I could talk to that knew me well enough" suggests that the student was cognizant of there being people around in whom he or she could potentially confide, but none who were close enough emotionally. A majority of these responses focused on lack of trust that contributed to a sense of isolation, such as "there is no one that I trust enough to tell" and "[I] didn't know anyone well enough to trust them."

Another type of response in this category explicitly identified people that could serve as potential confidants, and then rejected them as unacceptable due to lack of trust, care, proximity, or emotional availability. For example, a student with a romantic partner stated "I don't have any friends now in my life anyways, and my boyfriend is a very emotional person." Another student recognized that he or she could reach out to family, but rejected this option, stating "my family doesn't care, and I have no friends. I had no one to tell, and no support for or against my decision." A student who was receiving professional help responded "I didn't trust anyone enough to tell them, including my therapist." Lack of proximity was referenced in the following response:

> I'm 1500 miles away from everyone that cares about me, in the middle of nowhere with no one I trust. I would have talked about it if I thought anyone could help me through this, but there isn't anyone here that can.

Again, some of the responses explicitly linked the lack of confidants to the development of suicidality, such as in the response "I'd had a falling out with the only people I trusted enough to talk about such things with (which was what prompted these thoughts in the first place)." The feelings of isolation were therefore not only a barrier to disclosure of the suicidal ideation, but also a reason for originally considering suicide.

Other.

In addition to the nine content categories, a tenth category was created for the purpose of coding responses that either did not answer the question or could not be interpreted due to incompleteness of the response or excessively unclear language. For example, the incomplete response "because I thought no one ca" was coded as Other because an unacceptable degree of inference would have been required to categorize this response. Similarly, the response "I did not want to become a spectrum" was coded as Other because the unclear use of the term "spectrum" provided several equally viable possibilities for interpreting the response.

The Other category also included responses that failed to provide a rationale for concealing one's suicidal thoughts, such as in the following excerpt from a lengthy response indicating that the student did in fact discuss her suicidal thoughts with her therapist:

> It was a peacful [*sic*] feeling, the right thing to do. I was adjusted with the feeling, and a calm came over me. After the feeling passed, which it did just as naturally as it come, I talked to my therapist about it and she told me that thomas moore has an opinion that death/feelings of death are quiet. It is weird to think of it know

[*sic*], there was no planning, I just knew what I needed to do and I had the means and I was settled. I am really not sure why it did not happen, it just did not happen.

Several of the responses in this category indicated that the student did not know why he or she had concealed the suicidal thoughts or would prefer not to answer the question. Responses were only categorized as Other if no part of the response could be categorized into one of the content categories.

Quantitative Analysis Results

Research questions 1 and 2 included the *Ideator* sample of 1321 students who endorsed having seriously considered attempting suicide within the prior 12 months. Research questions 3 and 4 included only the *Concealer* subset of 556 students who did not tell anyone about their suicidal thoughts and also provided a reason for their concealment. For all analyses, the multinomial variables Race/Ethnicity and Sexual Orientation were dummy coded into dichotomous variables. A description of all dummy coded variables used in the quantitative analyses is provided in Table 4.2.

Research question 1.

This analysis seeks to answer the question of whether a student's likelihood of concealing his or her suicide ideation varies according to gender, race/ethnicity, sexual orientation or student status.

Table 4.2
Student Variable Descriptions

Dummy Coded Variables	**Formation Protocol**
Conceal	Students who selected "I did not tell anyone" for survey item 38 were coded "1;" those who told at least one person were coded "0."
Attempt	Students who responded "yes" to survey item 62 were coded "1;" those who denied attempting suicide in the past 12 months were coded "0."
Reasons for Concealment	*Categories are not mutually exclusive. Students received a "1" in multiple categories if their responses contained multiple themes.*
Low Risk	Students for whom a part of their response to item 42 was categorized as Low Risk were coded "1;" those whose responses did not reflect Low Risk were coded "0."
Solicitude	Students for whom a part of their response to item 42 was categorized as Solicitude were coded "1;" those whose responses did not reflect Solicitude were coded "0."
Privacy	Students for whom a part of their response to item 42 was categorized as Privacy were coded "1;" those whose responses did not reflect Privacy were coded "0."
Pointless	Students for whom a part of their response to item 42 was categorized as Pointless were coded "1;" those whose responses did not reflect Pointless were coded "0."
Stigma	Students for whom a part of their response to item 42 was categorized as Stigma were coded "1;" those whose responses did not reflect Stigma were coded "0."
Shame	Students for whom a part of their response to item 42 was categorized as Shame were coded "1;" those whose responses did not reflect Shame were coded "0."
Repercussions	Students for whom a part of their response to item 42 was categorized as Repercussions were coded "1;" those whose responses did not reflect Repercussions were coded "0."
Interference	Students for whom a part of their response to item 42 was categorized as Inteference were coded "1;" those whose responses did not reflect Interference were coded "0."
Perceived Lack of Confidants	Students for whom a part of their response to item 42 was categorized as Perceived Lack of Confidants were coded "1;" those whose responses did not reflect Perceived Lack of Confidants were coded "0."
Student Status	
Undergraduate	Student classification was provided by the institution. Undergraduates were coded "1;" graduate students were coded "0."

Table 4.2 Continued
Student Variable Descriptions

Gender	
Female	Students who selected "female" for survey item 2 were coded "1;" those who selected "male" were coded "0."
Race/Ethnicity	
African American	Students who selected only "African American/Black" for survey item 3 were coded "1;" those who did not were coded "0."
Alaska Native / American Indian	Students who selected only "Alaska Native/American Indian" for survey item 3 were coded "1;" those who did not were coded "0."
Asian American	Students who selected only "Asian American" for survey item 3 were coded "1;" those who did not were coded "0."
Latino/a	Students who selected only "Hispanic American/Latino" for survey item 3 were coded "1;" those who did not were coded "0."
Multiracial	Students who selected more than one from the above categories for survey item 3 were coded "1;" those who did not were coded "0."
International	Students who selected only "International/Foreign Student" for survey item 3 were coded "1;" those who did not were coded "0."
Sexual Orientation	
Bisexual	Students who selected "Bisexual" for survey item 17 were coded "1;" those who did not were coded "0."
Gay/Lesbian	Students who selected "Gay/Lesbian" for survey item 17 were coded "1;" those who did not were coded "0."
Questioning	Students who selected "Questioning" for survey item 17 were coded "1;" those who did not were coded "0."

Estimates of between-school variance and fixed versus random effects.

First, a fully unconditional model with Conceal as the outcome was run in order to assess the degree of variance between schools. For this initial model, $\tau = .00006$, indicating extremely low variability between schools in rates of concealment. Initially, only the intercept was allowed to randomly vary and all other effects were treated as fixed effects. Effects were then sequentially allowed to vary in a series of otherwise identical models, with the intention of identifying effects that were likely to vary across

schools (test of the variance $p<.10$) so that only these effects would be allowed to vary in the final model. However, no effects were found to vary across schools based on these criteria.

Demographic predictors of concealment.

The final model included Conceal as the outcome variable and all demographic variables as predictor variables with fixed effects. Student status and race/ethnicity were not associated with Conceal; undergraduates were as likely to conceal their suicidal thoughts as graduate students, and no racial or ethnic group emerged as more or less likely to conceal their suicidal thoughts. Gender was significantly associated with Conceal such that, after controlling for the other demographic variables, male students were more likely to conceal their suicidal thoughts than female students ($OR = 1.634$, $t[1268] = 3.984$, $p < .05$). Sexual orientation was also significantly associated with Conceal. After controlling for the other demographic variables, students who identified as heterosexual were more likely to conceal their suicidal thoughts than students who identified as bisexual ($OR = 1.596$, $t[1268] = 1.960$, $p = .05$) and less likely to conceal their suicidal thoughts than students who identified as questioning regarding their sexual orientation ($OR = 0.368$, $t[1268] = -2.668$, $p < .05$). The full outputs for all HLM final models are available in Appendix E.

Research question 2.

This analysis seeks to determine whether students who conceal their suicide ideation are more or less likely to attempt suicide than those who tell at least one person about their suicidal thoughts, after controlling for the effects of student status, gender,

race/ethnicity, and sexual orientation. The purpose of the analysis is not to establish the best fitting model with all relevant predictors of a suicide attempt, but rather to examine whether there is a relationship between concealing one's suicidal thoughts and attempting suicide within the same 12-month period.

Selection of variables for inclusion in the final model.

An initial model was generated with Attempt as the outcome variable and student status, gender, sexual orientation, and race/ethnicity except for Alaska Native/American Indian included as predictor variables. The Alaska Native/American Indian group was not included because no students in this group had attempted suicide in the past 12 months, thus creating a statistical singularity when this group was included in the model. For the initial model, only the intercept was allowed to vary and all other effects were treated as fixed effects, again to prevent a statistical singularity resulting from too much complexity in the model. Because the relationship between Conceal and Attempt was of primary interest, only predictor variables that were significant or marginally significant ($p<.10$) were included in the final model.

Concealment and likelihood of attempting suicide.

A final model was generated with Attempt as the outcome and Conceal, Undergraduate, African American, Asian American, Latino/a, International, and Bisexual as predictor variables. Because there were fewer categories, all effects were allowed to vary randomly. However, no effects were found to vary significantly across schools. After controlling for the other predictors in the model and the random effects, graduate students were less likely to attempt suicide in the past 12 months than undergraduate

students (*OR* = 0.548, *t*[69] = -2.472, *p*<.05). Caucasian students were less likely to attempt suicide than African American (*OR* = 0.361, *t*[69] = -2.762, *p*<.01), Asian American (*OR* = 0.428, *t*[69] = -2.436, *p*<.05), and Latino/a students (*OR* = 0.393, *t*[69] = -2.604, *p*<.05). After controlling for significant predictors of attempting suicide, concealing one's suicidal ideation was not associated with either increased or reduced risk for attempting suicide within the past 12 months.

Research question 4.

This analysis explores whether any demographic characteristics are associated with greater likelihood of endorsing particular reasons for concealing one's suicidal ideation.

Selection of variables for inclusion in the final model.

Separate chi-square analyses for all demographic variables and each reason for concealment were initially run with SPSS in order to identify variables for inclusion in the final logistic multilevel models. Table 4.2 outlines the percentages of members in each demographic group who endorsed a given reason for concealing their suicidal ideation. Variables that were significant or marginally significant (*p*<.10) in the chi-square analyses were included in the multilevel models and tested for significance with alpha set at .05 in the final model. Relationships that remained significant in the final model are noted in Table 4.2.

Table 4.2
Student Demographics and Reasons for Concealing Suicidal Ideation

	N = 556	Low Risk	Solicitude	Privacy	Pointless	Stigma
Student Status						
Undergraduate	382	24.9%	22.3%	21.7%	19.1%	18.1%
Graduate	174	25.3%	21.3%	20.1%	16.7%	19.0%
Gender						
Female	216	26.2%	**25.6%***	**17.0%***	**22.0%***	**21.4%***
Male	336	23.6%	16.7%	27.8%	13.0%	13.4%
Race/Ethnicity						
African American	23	21.7%	13.0%	21.7%	21.7%	21.7%
Alaska Native/ American Indian	5	20.0%	20.0%	40.0%	0%	40.0%
Asian American	30	23.3%	26.7%	13.3%	**33.3%***	13.3%
Caucasian	433	26.3%	23.6%	19.6%	17.1%	18.0%
Latino/a	19	31.6%	10.5%	**42.1%***	5.3%	10.5%
Multiracial	15	20.0%	13.3%	26.7%	**13.3%***	13.3%
International	30	10.0%	13.3%	33.3%	33.3%	30.0%
Sexual Orientation						
Bisexual	27	11.1%	25.9%	14.8%	**37.0%***	18.5%
Gay/Lesbian	22	40.9%	27.3%	13.6%	4.5%	9.1%
Heterosexual	485	25.4%	22.1%	21.6%	17.7%	18.8%
Questioning	22	18.2%	9.1%	27.3%	22.7%	18.2%

* $p<.05$ ** $p<.001$

Table 4.2 Continued
Student demographics and reasons for concealing suicidal ideation.

	N = 556	Shame	Repercussions	Interference	Perceived Lack of Confidants
Student Status					
Undergraduate	382	8.9%	8.6%	9.9%	5.0%
Graduate	174	12.6%	12.1%	7.5%	3.4%
Gender					
Female	216	11.9%	11.0%	7.4%	5.1%
Male	336	7.4%	6.9%	11.6%	4.2%
Race/Ethnicity					
African American	23	21.7%	13.0%	0%	0%
Alaska Native/ American Indian	5	20.0%	0%	0%	0%
Asian American	30	13.3%	3.3%	6.7%	10.0%
Caucasian	433	8.8%	10.6%	9.9%	4.6%
Latino/a	19	10.5%	0%	15.8%	5.3%
Multiracial	15	13.3%	0%	6.7%	0%
International	30	13.3%	13.3%	6.7%	3.3%
Sexual Orientation					
Bisexual	27	3.7%	25.9%	11.1%	11.1%
Gay/Lesbian	22	4.5%	27.3%	9.1%	4.5%
Heterosexual	485	10.7%	22.1%	9.3%	3.9%
Questioning	22	9.1%	9.1%	4.5%	9.1%

* $p<.05$ ** $p<.001$

Demographic predictors of reasons for concealment.

Separate logistic HLMs were generated for the following reasons for concealment as outcome variables: Low Risk, Solicitude, Privacy, Pointless, Stigma, Shame, and Interference. Effects of all predictor variables were allowed to vary randomly. The Low

Risk model included Multiracial, Gay/Lesbian, and Bisexual as predictor variables. The Solicitude model contained only Female as a predictor variable. The Privacy model included Female, Latino/a, and Multiracial. The Pointless model contained Female, Asian American, Multiracial, Gay/Lesbian, and Bisexual as predictor variables. The Stigma model contained Female and Multiracial as predictors. The Shame and Interference models both included Female as a predictor variable. Statistically significant relationships are described below.

Male students were more likely than female students to endorse Privacy as a motivation for concealing their suicidal ideation (OR = 1.938, t[68]= 3.069, p<.01). Male students were less likely than female students to endorse reasons for concealment in the Pointless (OR = 0.591, t[68]= -2,016, p<.05), Solicitude (OR = -0.542, t[68]= -2.450, p<.05), and Stigma categories (OR = 0.570, t[68]= -2.226, p<.05).

Regarding the effects of race/ethnicity on reasons for concealment, Caucasian students were less likely to endorse Pointless as a reason for concealment compared to both Asian American students (OR = 0.383, t[68]= -2.298, p<.05) and multiracial students (OR = 0.406, t[68]= -2.060 p<.05). Caucasian students were less likely to report Privacy as a reason for concealment compared to Latino/a students (OR = 0.311, t[68]= -2.393, p<.05).

Heterosexual students were less likely to endorse Pointless as a reason for concealment than students who identified as bisexual (OR = 0.487, t[68]= -2.127, p<.05). No differences among undergraduates and graduates in the frequency of endorsing reasons for concealment emerged. No demographic differences emerged for the

likelihood of endorsing the reasons Low Risk, Shame, Repercussions, Interference, and Perceived Lack of Confidants.

Research question 5.

This analysis seeks to determine whether any reasons for concealing one's suicide ideation are associated with greater or lesser likelihood of attempting suicide, after controlling for relevant demographic characteristics. Again, the purpose of the analysis is not to establish the best fitting model for predicting whether or not a given student will attempt suicide, but rather to examine whether any of the reasons for concealing suicidal thoughts indicate either protection against or risk for attempting suicide.

Selection of variables for inclusion in the final model.

Separate chi-square analyses crossing Attempt with each reason for concealment were initially run using SPSS in order to identify variables for inclusion in the final model. Table 4.3 presents the percentages of students who endorsed a given reason for their suicidal ideation that also made a suicide attempt in the past 12 months. Variables that were significant or marginally significant ($p<.10$) in the chi-square analyses were included in the final models and tested for significance with alpha set at .05.

Table 4.3
Reasons for Concealment and Suicide Attempts

	Attempted Suicide
Low Risk	1.4%*
Solicitude	12.4%
Privacy	11.1%
Pointless	16.2%
Stigma	11.8%
Shame	14.3%
Repercussions	13.5%
Interference	21.3%
Perceived Lack of Confidants	16.0%

*$p<.01$

Reasons for concealment and likelihood of attempting suicide.

Because the relationship between students' reasons for concealing and their odds of attempting suicide was of primary interest, only the significant demographic predictors of attempt from the final analysis for research question 2 were included in the final model. Therefore a logistic multilevel model was generated with Attempt as the outcome variable, Undergraduate, African American, Asian American, and Latino/a as control variables, and the reasons for concealment Low Risk, Pointless, and Interference as predictor variables. All effects were allowed to vary randomly. After controlling for the other predictor variables, the race/ethnicity variables were no longer associated with likelihood of attempting suicide in the past 12 months, while undergraduate status remained significant for increased likelihood of attempting suicide ($OR = 0.282$, $t[69] = -3.004$, $p<.01$).

Although the preliminary analyses had indicated a strong association between endorsing Interference as a reason for concealment and increased likelihood of

attempting suicide (χ^2 <.05), that relationship did not remain significant in the final analysis. It remains noteworthy that 21.3% of students whose reasons for concealment were coded as Interference attempted suicide compared to 10.4% of students who did not endorse Interference. In the final analysis, the only reason for concealment that was statistically significant was Low Risk. Endorsing Low Risk was protective against attempting suicide, such that students who did not endorse Low Risk as a reason for concealment had odds of attempting suicide that were fourteen times greater than those of students who did endorse Low Risk (*OR* = 14.004 *t*[69]= 3.400, *p*<.01).

Chapter Five: Discussion

The primary aim of this study was to understand why students avoid both formal and informal support during a serious suicidal crisis. Suicide prevention researchers are increasingly attending to the importance of informal support seeking by suicidal youth and college students (Cauce et al., 2002; De Leo et al., 2005; Freedenthal, 2006; Freedenthal & Stiffman, 2007; Molock et al., 2007; Nada-Raja et al., 2003). Furthermore, many recent campus suicide prevention programs are aimed at increasing the rates at which trained gatekeepers identify, approach, and refer to professional help students who are in distress (Tompkins & Witt, 2009; Deane & Chamberlain, 1994). Although barriers to professional help seeking are well studied, a crucial aspect of the help seeking process has been largely unexplored: the beliefs and motivations that prompt students to conceal their suicidal thoughts from peers, partners, family members, and would-be gatekeepers.

Understanding the reasons why students conceal their suicidal thoughts has implications for campus-wide prevention initiatives. Prevention programming aims to increase rates of help seeking by students who experience suicidal crises, while simultaneously reducing the prevalence of distress and suicidality among the student population. In this chapter, study findings regarding predictors and outcomes of concealment will be discussed. Implications for college suicide prevention associated with each of the reasons for concealment will be explored and integrated with relevant results from the quantitative analyses. Next, implications for campus-wide interventions will be demonstrated by outlining ways that a hypothetical peer-response training

program could incorporate findings from this study. The chapter will conclude with a discussion of study limitations and directions for future research.

Demographics and Concealment

Concealing suicidal thoughts is not well understood and therefore, in addition to exploring students' motivations for concealment, a secondary purpose of this study was to better understand this phenomenon. For example, it was of interest whether students' demographic characteristics would be associated with higher likelihood of concealing their suicidal ideation. Consistent with prior research regarding gender and professional help seeking (Addis & Mahalik, 2003; Carlton & Deane, 2000; Gould et al., 2004; Mishara et al., 2005), and adding to the limited evidence regarding informal help seeking (Boldero & Fallon, 1995), male students in the present study were more likely than female students to conceal their suicidal thinking. While this finding is not unexpected, it does underscore the need to tailor attempts to increase informal help seeking so that they appeal to male students.

Interestingly, students who identified as bisexual were less likely to conceal their suicidal thoughts compared to heterosexual students, while students who identified as questioning were more likely to conceal their suicidal thoughts. Because students who are questioning their sexual orientation may be accessing information about campus communities for sexual minority and ally students, the websites and physical meeting spaces of LGBTQ student associations offer promising venues for promoting help seeking among this group. In addition to providing information about campus counseling

services, these sites could also provide links to national LBGTQ-specific resources, such as the 24-hour confidential Trevor suicide helpline (The Trevor Project, 2007).

It was also of interest whether students who concealed their suicidal thoughts would show higher risk of attempting suicide than students who told at least one person. However, no associations were found between concealment and attempting suicide. This is surprising in light of findings that self-concealment contributes to increased emotional distress (Cramer, 1999; Ichiyama et al., 1993; Kelly & Achter, 1995; Lopez et al., 2002; Potoczniak et al., 2007). It is possible that the prevalence of Low Risk as a reason for concealment explains why, even though students who concealed their ideation experienced a great deal of emotional distress, they were not more likely to attempt suicide than those who disclosed. Students who experience more disturbing or urgent suicidal thoughts may be less capable of hiding their distress, or they may find that their desire for emotional relief overcomes their motivations for avoiding help.

Reasons for Concealment

In order to allow the uniqueness of the students' voices to emerge, no *a priori* categories were used for this analysis. Themes were instead drawn directly from the text, rather than from existing literature or theory (Hsieh & Shannon, 2005; Kondracki et al., 2002; Roberts, 2001). However, existing models unavoidably influenced the mindset and expectations of the researchers to some degree (Schilling, 2006). For example, stigma related to suicide and mental health issues was expected to emerge, because this is the most commonly identified barrier to professional help seeking among college students

(Carlton & Deane, 2000; Deane & Chamberlain, 1994). Reasons related to isolation (Joiner, 2005; Skogman & Öjehagen, 2003) and perceptions of burdening others (Wingate et al., 2004; Van Orden et al., 2006) were also anticipated.

As expected, attitudinal barriers to seeking help were far more common than perceived structural barriers. Not a single student reported difficulty or cost of accessing helping services as a reason for not telling anyone about his or her suicidality. Only the Perceived Lack of Confidants category, which comprised 3% of the total thematic responses, might be construed as representing a structural barrier because these students could not identify any appropriate confidant. However, even among these responses it was apparent that many students realized that there were people they could tell about their suicidality, but they rejected these sources of support due to perceptions of inappropriateness or inadequacy.

This study also highlighted the salience of other motivations that have not received much attention in the literature on barriers to help seeking, such as the belief that one is not at risk, concern for the feelings of others, dispositional tendencies to conceal personal information, lack of desire for help, and the belief that no one can help. Prior studies (e.g. Freedenthal & Stiffman, 2007; Gilchrist & Sullivan, 2006; Nada-Raja et al., 2003) have separately identified several aspects of the reasons for concealment, with each contributing a limited scope and number of reasons. This study both includes and expands upon those reasons, thus providing a more comprehensive picture of motivations for concealment and more identified targets for intervention. With increased knowledge of the reasons that inform students' decision to conceal their suicidal thinking, suicide

prevention programs can deliver focused messages to counteract common barriers to seeking support.

Low Risk.

The most common reason given by students for concealing their suicidal thoughts was that they did not believe that they needed help. These responses focused on either the transience or lack of seriousness of the suicidal thoughts, or the students' resolve not to attempt suicide. This is similar to one of the reasons that self-harming youth in New Zealand gave for avoiding formal or informal help, which the researchers characterized as "thought [the] problem would resolve itself" (Nada-Raja et al., 2003, p. 603). This reason for concealment is directly linked to the *problem recognition* phase of the help seeking pathway outlined by Cauce et al. (2002). It may surprise those familiar with mental health issues that students who acknowledged having *seriously* contemplated taking their own lives (an item endorsed by only 6% of students who responded to the survey) did not perceive this event as necessitating either formal or informal help. However, despite the high level of emotional distress these students were experiencing, they did not identify their suicidal thoughts as a problem for which it would be appropriate to seek help.

Quantitative analyses confirmed that the perception among these students of being at low risk for attempting suicide was accurate, at least with regard to the 12-month period under study. Only 1.4% of the students who endorsed Low Risk as a reason for concealment went on to attempt suicide, which was significantly less than the 14.7% of concealers who did not endorse Low Risk that attempted suicide within the 12 months.

This is in accordance with findings that individuals can accurately assess and report their risk for attempting suicide (Michel et al., 2002; Michel et al., 1994; Skogman & Öjehagen, 2003; Wingate et al., 2004). Although it is comforting that the most common reason for concealing suicidal ideation was associated with reduced risk for a recent suicide attempt, this group of students also represents an ideal opportunity that is currently being missed for intervening to reduce distress and decrease future likelihood of suicidal thoughts, attempts, and completions.

Repeated exposure to suicidality, much like repeated exposure to depression (Post, Weiss, Leverich & George, 1996), decreases one's threshold for future suicidal behavior and lessens the association between negative life events and intensity of the suicidal crisis (Joiner & Rudd, 2000). Many of the students who endorsed Low Risk referenced prior episodes of suicidal thinking that informed their expectation that the current episode would eventually pass. Several of these students also mentioned having made one or more prior suicide attempts. Although students perceived this experience to be a deterrent against future attempts, having made a prior attempt is the strongest and most robust predictor of whether a person will eventually die from suicide (Garland & Zigler, 1993; Joiner et al., 2005; Lewinsohn et al., 1996; Maris, 1992; Pollock & Williams, 1998; Schwartz, 2006b; Steer et al., 1988).

Therefore, although the students who endorsed Low Risk as a reason for concealment were less likely than other concealers to report a recent suicide attempt, they will likely struggle with recurrence of suicidal thoughts and behaviors throughout their lives. Both clinical and population-focused interventions that reach students at a point of

reduced risk for attempting suicide are more likely to be successful than those that occur after the student has progressed further along the risk continuum (Barnes et al., 2001; Carlton & Deane, 2000; Deane et al., 2006; Deane et al., 2001; Saunders et al., 1994). Students who endorsed Low Risk were not indicating that they did not want help, but rather that they did not perceive a need for help. As a stark contrast, students who endorsed Interference as a reason for concealment had already reached the point of *help negation* (Clark & Fawcett, 1992), at which they would be unlikely to respond to most interventions. Students in the Low Risk group are likely to be amenable to help, and if reached they could learn strategies for coping with suicidal thoughts that would provide protection against future progression along the risk continuum.

The Low Risk reason for concealment illustrates a need to expand students' perceptions of when it is appropriate to seek help for their concerns. Campaigns that seek to reduce stigma by normalizing the experience of having suicidal thoughts must be careful not to contribute to a belief that suicidal thoughts are "normal" and are therefore not a problem. Rather, it is important to normalize this experience while simultaneously emphasizing the seriousness of contemplating suicide and the necessity of seeking help regardless of whether one is likely to act on the thoughts. Educating students about the recurrent nature of untreated suicidality and framing this as a reason to seek help now may prompt students to recognize that they have a problem for which they can and should seek help.

Solicitude.

The second most frequently endorsed reason for concealment focused on concern for the emotional well-being of others and belief that the disclosure would burden them. This is similar to a reason suggested by respondents in Gilchrist and Sullivan's (2006) study for why they imagined that suicidal youth would not seek help. Specifically, respondents proposed that youth would not tell their parents out of concern that their parents would feel burdened and would not know how to cope with knowledge of their suicidality.

The concern about burdening others with one's personal distress echoes the importance of perceived burdensomeness in generating suicidal desire according to Joiner's (2005) interpersonal theory of suicide. According to the theory, the desire for death is present when a person both loses his or her sense of having caring relationships with others and comes to believe that he or she is a burden and would benefit other people more through death than in life. Although the concern for others' well-being expressed in the Solicitude category is not equivalent to globally believing one's self to be a burden, there are similarities in that these students devalued their own safety and welfare relative to the perceived needs of other people.

Despite some overlap with the burdensome component of the desire to die, students who endorsed Solicitude were not any more or less likely to attempt suicide than others who concealed their suicidal ideation. This may be because the responses in this category reflect a degree of emotional attunement to others. This suggests that these students retained caring and meaningful social connections, even if they were inhibited

from securing emotional support or comfort from those connections. Quantitative analyses revealed that female students were more likely than male students to endorse Solicitude as a reason for concealment. This finding is consistent with gender role norms that encourage women to be concerned for the well-being of others (Eagly, 1987; Gilligan, 1982). It also suggests that approaches to reducing the salience of this reasons for concealment might be framed in ways that would likely appeal to female students.

Concern about burdening or harming others is such a common reason for concealment that campaigns targeting this motivation could potentially increase the rates of disclosure among suicidal college students. Joiner, Van Orden, Witte & Rudd (2009) recommend that therapy with suicidal individuals should include direct challenges to the client's perception of burdening others, which is presumed to be irrational. Similarly, the belief that one's disclosure would be an unwanted burden on other people could be challenged through targeted messages as part of awareness-raising campaigns and suicide prevention education.

Because the students in this group seem to remain socially and emotionally connected to others, messages that highlight their connectedness may be effective. For example, informal support seeking may be encouraged by messages that emphasize reciprocity in relationships, such as "you would want your friends/family to tell you about such a serious problem, so it isn't fair to them if you keep it secret." In addition, because these students are concerned about the feelings of others, they may respond well to messages that focus on how seeking professional help will benefit their friends and family. Campus counseling centers and anonymous phone counseling lines could include

in their promotional materials some version of the concept that "we're here for you so that you can be there for the people who depend on you." Seeking help would be framed as a selfless rather than a self-centered act, which may also serve to reduce concerns about harming or burdening others.

Promoting self-disclosure as an altruistic act that benefits not only one's close circle but also the larger group of peers may be particularly effective in overcoming the Solicitude reasons for concealment. These students might respond to messages that they can provide a positive example for others who struggle with similar issues by being open about their own struggles and modeling ways of proactively coping with suicidal thoughts. Part of the success of campaigns like the "Half of Us" website (Ulifeline, 2008), which presents narratives of celebrities and peers who have coped with a variety of mental health issues, is that sharing personal problems and seeking help for them is modeled as both courageous and altruistic.

Privacy.

Another prominent reason for concealing suicidal thinking was that students habitually kept their emotions and problems to themselves and preferred to cope without help from other people. For students who endorsed Privacy, secrecy regarding personal concerns was a recognized to be a consistent tendency akin to *self-concealment* (Larson & Chastain, 1990), rather than a choice made in the specific context of whether to disclose or conceal one's suicidal thoughts. This theme was echoed in findings by Nada-Raja et al. (2003) that self-harming youth who avoided formal and informal help believed that they should be strong enough to handle the problem on their own.

Privacy was the only reason for concealment that was endorsed more frequently by male students than by female students. This is consistent with the literature on dominant masculine ideologies, which place high value on self-reliance and eschew admitting a need for help (Addis & Mahalik, 2003; Good, Borst & Wallace, 1994; Mansfield, Addis & Mahalik, 2003; Rochlen, 2005). Aspects of the traditional male gender role that discourage help seeking have been found to mediate the relationship between gender role adherence and increased suicide risk for men (Houle, Mishara, & Chagnon, 2008). Finding ways to increase informal as well as formal help seeking by male college students may therefore play an important role in reducing campus suicide rates.

Somewhat surprisingly, Latino/a students were more likely than Caucasian students to endorse Privacy as a reason for concealment. While research regarding help seeking by Latino/a students has indicated greater reluctance to share personal issues with a professional helper (Barker & Adelman, 1994; Sanchez & King, 1986), no such findings have been reported for avoiding informal support. The importance of *familism* within Latino cultures, which emphasizes the importance of the family unit as a source of support as well as mutual obligation, loyalty, and family unity (for a review see Steidel & Contrera, 2003) might suggest that privacy regarding personal concerns and self-sufficiency in solving problems would not be highly valued. However, if family members are not perceived to be appropriate or available to receive a disclosure of suicidal thinking, the value of *familism* may tend to discourage seeking help outside of the family.

Overcoming the barrier to help seeking caused by an orientation towards privacy and self-sufficiency requires a shift in institutional culture as well as broader cultural messages. It has been noted that social networks may either promote or discourage help seeking, depending upon their cultural norms (Cauce et al., 2002). Valuing self-reliance has been identified as a culturally relevant attitude that decreases young people's formal and informal help seeking (Barker & Adelman, 1994). Students who have internalized the message that personal problems should be kept to oneself and dealt with alone may be difficult to persuade that talking to others is an appropriate response to suicidal thinking.

Self-concealment is construed as an enduring personality orientation towards concealing negative or distressing personal information from others, rather than a situation-specific preference for secrecy (Larson & Chastain, 1990; Wismeijer et al., 2009). This stable orientation towards secrecy is reflected in many of the students' responses in this category. However, it is possible that students who endorsed Privacy as a reason for concealment may be responsive to messages that emphasize the strength and courage it takes to share one' struggles with others. These messages may be most effective at reaching the target audience if delivered by male and/or Latino peers and role models. Again, the "Half of Us" campaign (Ulifeline, 2008) provides a good example for this type of social modeling. Many of the personal narratives, particularly those of young men, explicitly reference a previously held value for self-reliance and secrecy that shifted to a value for reaching out to friends and family and seeking needed help.

Messages that reinforce the importance of "joining forces" rather than "going it alone" may help alter social norms regarding self-reliance within campus communities. A

good example is provided by the "Together > Alone" slogan of the Counseling and Mental Health Center at UT Austin's campaign to promote solidarity and informal support seeking to deal with the stresses of college life (University of Texas at Austin CMHC, 2009). Also, providing anonymous avenues for seeking help may be particularly important for students for whom Privacy is a barrier to help seeking. Twenty-four hour, anonymous telephone counseling offers an opportunity for secretive students to access a caring listener. College-specific online forums such as BuffSecret.com, which provides an anonymous venue for University of Colorado students to share secrets and witness those of their classmates, can both provide relief from expressing one's secrets and a sense of universalism and togetherness from realizing that fellow students share similar problems (BuffSecret.com, 2010). Websites such as this also provide an opportunity to promote help seeking by providing links to suicide hotlines and local counseling services.

Pointless.

Students who endorsed Pointless as a reason for concealment assumed that seeking help would be useless and that other people either would not or could not help them. Many of these students expected that others would downplay any disclosure of suicidality that they might make; sadly, a sub-set of students had actually made prior unsuccessful attempts to tell people about their thoughts. The belief that no one can help was endorsed as a reason for avoiding help by the self-harming youth interviewed by Nada-Raja et al. (2003). Gilchrist and Sullivan (2006) found that concern about being ignored, laughed at, or misunderstood was proposed as a reason why suicidal youth might avoid seeking help. The Pointless category captures some degree of hopelessness in that

students believed that even if they wanted help no one would be able to provide it. However, most of the responses focused on social norms regarding how peers and family members were expected to respond to a disclosure of suicidality.

Among students who concealed their suicidality, female students were more likely than male students to endorse Pointless as a reason for concealment. This finding is unexpected given that women seek both professional and informal help more often than men (Carlton & Deane, 2000; Deane & Todd, 1996; Morgan et al., 2003) and thus might be expected to hold higher expectations regarding the potential usefulness of seeking help. However, the belief that others would not take them seriously and would instead perceive their suicidal thoughts or behaviors as "melodramatic" or "attention-seeking" may be particularly salient for young women. Nonfatal suicidal behavior is construed as feminine in Western cultures (Canetto, 1997, 2008; Cato & Canetto, 2003; Dahlen & Canetto, 2002), which may give rise to perceptions among female college students that telling others about their suicidal thoughts will elicit indifference or ridicule. Media portrayals of female suicidality may contribute to the feeling, expressed by one female student, that "suicide is very cliché, very overdone." As demonstrated by the students in this group who referenced past failed help-seeking attempts, there is some truth to students' concern about not being taken seriously.

Additionally, Asian American and multiethnic students were more likely than Caucasian students to endorse Pointless as a reason for concealment. Previous research has noted that model minority stereotypes regarding Asian Americans, combined with the perception that this group is at reduced risk for suicide, may prompt both professionals

and nonprofessionals to downplay or ignore expressions of distress by Asian or Asian American students (Chang, Tugade & Asakawa, 2006; McKenzie, Serfaty & Crawford, 2003; Shiang, 1998; Wing, 2007). Therefore the Asian American students in this study may have been aware that their disclosures of suicidality might not be taken seriously. Although research regarding factors that may influence concealment motivations in multiethnic individuals is far more limited, it is possible that experiences of being different from others and feeling constantly misunderstood regarding one's racial and/or ethnic identity (Paladino & Davis, 2006; Reynolds, 1991) may influence beliefs that other people would not understand or respond well regarding personal issues such as the experiencing of suicidal thoughts.

Interestingly, students who identified as bisexual were also more likely to endorse Pointless as a reason for concealment compared to heterosexual students. The experience of being different and not being fully accepted as a member of any one group has also been noted as part of the experience of bisexual individuals, who often encounter stereotypes and prejudice from both heterosexual and gay and lesbian groups (Kertzner, Meyer, Frost, & Stirratt, 2009; Herek, 2002; Reynolds, 1991). It is possible that for both multiethnic and bisexual students the experience of having one's identity repeatedly questioned and misunderstood may contribute to the belief that other important issues, such as having suicidal thoughts, will also be misunderstood.

Until students have had a first-hand experience of disclosing their suicidal thoughts and having someone respond helpfully, it may be difficult to change their perceptions of the uselessness of seeking help. Enhancing social connectedness and a

sense of belonging to a caring campus community could help students believe that other people will care, take them seriously, and perhaps offer valuable help. Exposure to narratives of peers who have sought help for similar issues and found it useful may also help students overcome this barrier to help seeking. However, it is clear from the responses in this category that a more pervasive cultural shift in the way that suicide is portrayed in the media and discussed in casual conversation is also an important component of diminishing this barrier. Some students found that when they tried to communicate their suicidal thoughts, they were not taken seriously because their peers use phrases such as "I could just kill myself" as casual figures of speech. It is therefore important that students receive information to counteract misperceptions of suicidality as trivial or melodramatic. A component of this education should highlight the unintended impact of casual "suicide speak" and discourage its use. All students need to hear the message that having suicidal thoughts is indicative of real emotional pain and should be responded to seriously.

Stigma.

The most consistent theme in the literature on barriers to seeking both formal and informal help is the role of stigma surrounding suicidality and help seeking (Broadhurst, 2003; Carlton & Deane, 2000; Deane & Chamberlain, 1994; Freedenthal & Stiffman, 2007; Nada-Raja et al., 2003). Although Stigma and Shame were the 5th and 6th most frequently endorsed reasons in the current study, prior research has typically combined these concepts without differentiating between an internal or external locus of the judgments. In the current study, if Stigma and Shame had been combined into a single

category it would have emerged as the most prominent reason for concealing suicidal ideation, with 20% of the responses being categorized as Stigma/Shame. This inquiry therefore confirms prior findings that negative attitudes towards having suicidal thoughts create significant barriers to disclosure by suicidal students. The anticipated negative reactions from other people included not only the perceived stigma of having mental health concerns, but also the expectation of being met with blame and hostility for considering suicide.

Surprisingly, female students were more likely than male students to endorse Stigma as a reason for concealment. Prior research has suggested that stigma may be a greater deterrent to help seeking for men (Addis & Mahalik, 2003; Gilchrist & Sullivan, 2006). However, conceptualizations of mental health stigma tend to focus on beliefs that one will be judged for being "crazy," without necessarily anticipating blame and hostility. Cultural beliefs about the gendered nature of suicidal behavior as "weak" and "feminine" may sensitize women more highly to stigma against admitting suicidal thoughts more than for other mental health issues. These findings underscore that stigma is not solely a barrier to men's help seeking, but is in fact more commonly referenced by women who conceal their ideation.

Campaigns to fight stigma towards help seeking and mental health issues on college campuses are widespread. Active Minds, a national organization that brings college students together to fight mental health stigma, initiated the Send Silence Packing campaign to raise awareness about suicide on college campuses (Active Minds, 2010). Counteracting stigma is also a primary purpose of the "Half of Us" website launched

through the partnership of The Jed Foundation, and mtvU (Ulifeline, 2008). The Substance Abuse and Mental Health Services Administration has published a guide for developing stigma reduction initiatives (SAMHSA, 2006). On college campuses, these initiatives fight stigma primarily by raising awareness of the prevalence of mental health issues and emphasizing that recovery is possible. This approach may be more effective for reducing students' internal negative evaluations of mental health than for changing their expectations of how others will react. A student could personally believe that there is no shame in having suicidal thoughts, and yet still avoid seeking help due to the negative reactions expected from others.

Therefore an important component of overcoming the Stigma barrier to disclosure is altering students' expectations of how others will react. It may be helpful to supplement the individual narratives common to stigma-reducing campaigns with group narratives featuring the individual student who has struggled with suicidal thoughts in the company of friends and family expressing their support. This type of campaign may go further towards persuading students that the reactions of others are not likely to be as negative as they expect.

Shame.

Although clearly similar to Stigma, Shame was established as a separate category in the current study to capture the internally focused belief that having suicidal thoughts is inherently wrong. Some of these students explicitly referenced religious beliefs that had informed their perception of suicidal thoughts as unacceptable or sinful. For members of western cultures, the message that taking one's own life is a sin or a crime is

so historically entrenched (Leenars, 2003) that even for students who do not identify as religious, these cultural attitudes may impact the way they feel about having suicidal thoughts.

Part of the value in separating internal negative evaluations of suicidal thoughts from expectations of being evaluated negatively by others is that these belief systems may be modified in different ways. That is not to say that an individual's beliefs exist in isolation of cultural beliefs, but rather that methods of counteracting these beliefs could be refined to reflect the internal versus external focus. For example, the expectation that others will react negatively may be best counteracted by examples of students being supported by peers, whereas the internal perception of suicidal thoughts as shameful, sinful, or weak may be best counteracted by traditional approaches to stigma reduction that highlight facts about prevalence and stories of respected role models who have shared similar struggles.

Repercussions.

Students reported concern about a variety of consequences that they believed would result if they told someone about their struggles with suicidality. While fear of consequences such as forced treatment or loss of confidentiality has been noted as a reason why adolescents avoid telling informal confidants about their suicidal thoughts (Freedenthal & Stiffman, 2007; Nada-Raja et al., 2003), some of the feared consequences in the current study were specific to being an undergraduate or graduate student. For example, in addition to concerns about forced hospitalization, medication, or therapy, students were worried that they would be expelled or held back in their academic

progress. They were also concerned about losing job opportunities and familial relationships such as marriage or child custody.

The Repercussions reason for concealment is the most clearly linked with institutional policies regarding suicidal students, which raise complex issues of confidentiality, safety, and forced-leave policies. Responses in this category reflect legitimate concerns in addition to some degree of misperception about the likelihood of these consequences. For example, depending on the counseling center, students' concerns that telling a professional counselor about their suicidal thoughts will automatically result in a violation of their confidentiality could be either an accurate or exaggerated perception of the limits to confidentiality. Currently, most counseling centers maintain the confidentiality of students who have suicidal ideation unless the student is considered to be at imminent risk and hospitalization is deemed necessary. However, some schools are implementing controversial "counseling waivers" that would allow college counselors to inform the university or the students family and friends in the event of any disclosure of suicidality (Capriccioso, 2006).

Furthermore, some scholars of law and college mental health believe that, although colleges will not be considered in most cases to have a duty to prevent a student's suicide, they will be increasingly held by courts to have a duty to notify parents of their child's suicidal ideation or attempts (Lake & Tribbensee, 2002; Gray, 2007). They propose that a fiduciary relationship exists between the university and student, thus allowing for disclosure that is in the best interest of the student. However, for some students parental involvement may worsen rather than improve their safety. Therefore, if

the duty to inform becomes increasingly upheld as a legal obligation, institutions must develop protocols for deciding when and who to notify on a on a case-by-case basis (Gray, 2007). Because policies vary across schools, counseling centers may want to provide information about exactly where they place the limits to confidentiality. For example, students might feel more comfortable visiting the counseling center if they understood that hospitalization is considered only for imminent risk of self-harm, and not for simply disclosing suicidal thoughts.

Students' fears about being forced into treatment may also be accurate, depending on the policies of their university. For example, the University of Illinois mandates four assessment sessions for any student who manifests suicidal ideation or behavior (Joffe, 2008). This program avoids legal issues such as potential violation of the Americans with Disabilities Act (1990) by focusing on student conduct rather than mental health or illness, and by establishing explicit policies that suicidal threats or behaviors will be subject to disciplinary action. Students are given the choice to participate in the program or leave the school. While preferable to forced-leave policies that promote disengagement from suicidal students, this model confirms students' fears about being forced into treatment, and may encourage concealment of suicidal ideation.

Students also indicated fear that any disclosure of suicidal thoughts would result in being expelled or forced to take a leave of absence, which would disrupt academic progress and mar their disciplinary record. Such fears may be more common among students following media coverage of recent incidents such as Jordan Nott's expulsion from George Washington University after voluntarily seeking help for depression

(Hoover, 2006; Kinzie, 2006). The issue of forced-leave policies for suicidal students raises complicated ethical and legal issues. There is no question that the presence of actively suicidal students on campus can be disruptive to their classmates and dormitory mates. Schools have an ethical duty to both the individual and the student population to ensure that suicidal students receive appropriate treatment, which in some cases may be best accomplished through a leave of absence.

However, most college mental health and law scholars are highly critical of "blanket policies" that mandate a leave of absence for any student who manifests suicidal ideation (Appelbaum, 2006; Pavela, 2006). These policies, which have become more common in recent years, tend to be reactionary in nature and driven by fears of negative publicity or liability in the event of a student death (Appelbaum, 2006). However, these policies do not actually represent good public relations or good legal practice for universities. Court decisions that universities have a duty to prevent suicides are the exception rather than the rule (Lake & Tribbensee, 2002; Pavela, 2006). Universities enacting such policies are far more likely to be sued by students claiming discrimination and violation of rights than they are to avoid liability for a student's suicide (Appelbaum, 2006; Capriccioso, 2006; Gray, 2007).

Pavela (2006) proposes that institutions may use the following guidelines to negotiate these difficult decisions in a way that protects the institution, the individual student, and the student population. First, "blanket policies" should be abolished, and decisions about medical leave or withdrawal should be made on a case-by-case basis. These decisions should be made according to pre-defined procedures, with careful

deliberation, and allowing for due process such that the student may present evidence supporting his or her case to remain on campus. Also, decisions should be based on individualized assessments and the guiding principle to do no harm. Importantly, suicidality should not be construed as an infraction of school rules or a disciplinary matter, and should instead fall under the school's medical policies. Finally, these proceedings should be entirely separate from whatever treatment the student may be receiving at the campus counseling center.

In addition to following these guidelines, universities may consider increasing their transparency regarding such policies. It would be naïve to assume that students are unaware that being forced to leave school is a potential outcome of disclosing their suicidal thoughts. Students in the current study were aware of this possibility, and accordingly chose to conceal their suicidal thoughts. Although even appropriately structured forced leave policies may deter help seeking (Gray, 2007; Kinzie, 2006; Pavela, 2006), students at schools that do not implement "blanket policies" may be overestimating the likelihood that they will be required to take leave if they seek help for their suicidal thoughts. In reality, leaving school is not ideal for the majority of students with suicidal thinking, particularly given that risk for suicide increases dramatically for students who leave school prematurely (Haas et al., 2003). Furthermore, leaving school may deprive students of valuable sources of social support and reasons for living such as wanting to obtain their degree (Drum et al., 2009; Pavela, 2006). The finding that students' awareness and potential misperceptions of repercussions deters some students

from disclosing their suicidal thoughts should be taken into consideration as universities establish policies and determine how transparent to be regarding these policies.

Interference.

The most concerning reasons that students gave for concealing their suicidal thoughts were those that were categorized as Interference. These students presented themselves as determined either to attempt suicide or to preserve their ability to do so. Their responses indicated that they were in a phase of *help negation* (Clark & Fawcett, 1992). While help negation has been conceptualized as the refusal to accept or access professional help during or immediately after acute suicidality, students in the current study were also unwilling to access informal sources of support because, according to their self-report, they did not want help.

Students who endorsed Interference were not statistically more likely to attempt suicide within the same 12-month period, after controlling for other predictors. This may have been due to a relatively small number of responses that were categorized as Interference. However, it is still noteworthy that more than 20% of concealers who endorsed Interference made a suicide attempt, compared to just over 10% of concealers who did not endorse Interference. Prior research has found that lower intention to seek help and greater levels of help negation are associated with higher levels of suicidality (Carlton & Deane, 2000; Deane et al., 2006; Deane et al., 2001; Saunders et al., 1994). Yet even students who present themselves as temporarily unreachable and unresponsive to potential helpers are likely to survive the suicidal crisis and perhaps be more amenable

to help in the future. The group of students who endorsed Interference underscores the importance of prevention approaches such as limiting access to potentially lethal means.

Many of these students may have been protected from taking their lives due to protective measures such as barriers around rooftops from which they might jump, restricted access to potentially lethal drugs and chemicals, and most importantly, campus bans on firearms (Haas et al., 2003; Mann, Apter, Bertolote, Beautrais, Currier, Haas, Hegerl, et al., 2005; Schwartz, 2006c; Schwartz & Whitaker, 1990). It is also important to acknowledge that a subset of students will not be responsive to interventions meant to increase help seeking. Therefore suicide prevention programs must concurrently implement interventions to decrease the overall distress among the population and to increase the likelihood that students will survive a period of suicidal crisis, even if they cannot be persuaded to seek help.

Perceived Lack of Confidants.

Social isolation and loss of valued social connections have been identified as important contributors to the desire to end one's life (Heisel et al., 2003; Joiner, 2005; Joiner & Rudd, 1996; Westefeld et al., 2005). It was therefore surprising that only 3% of the reasons students gave for concealing their suicidal thoughts fell into the Perceived Lack of Confidants category. Furthermore, responses in this category encompassed rejection of potential identified confidants in addition to a true sense of isolation. It may be that isolation contributes more greatly to the development of suicidal thoughts than to the decision to conceal those thoughts. Also, these findings underscore the fact that programs aimed at increasing social connectedness and sense of belonging cannot simply

focus on increasing the quantity of students' social contacts, but rather must work to enhance the quality of these relationships.

Increasing social connectedness in schools and communities has been promoted as a key strategy for national suicide prevention, both for college campuses and on a societal level (The Jed Foundation, 2010; SPRC, 2004; U.S. Department of Health and Human Services CDC, 2008). These efforts must go beyond simply urging students to "get involved" and should provide opportunities to develop meaningful and caring social relationships (Silverman, 2008). Many campuses are developing programs such as Freshman Interest Groups (FIGs) and Living-Learning Communities (LLCs) to increase academic and social engagement by fostering relationships among students and between students and faculty members (Purdie, 2008). Programs for incoming first-year and transfer students are particularly important, as many of these students have few pre-existing social supports on campus. FIGs are increasingly common and provide an opportunity for students to live with a small group of other first-year students while being enrolled in multiple courses together. LLCs are typically larger, include continuing as well as first-year students, and focus on a specific academic topic or major.

Cooperative rather than competitive classroom learning has also been promoted as a means of enhancing social support in the classroom (Johnson, Johnson, Buckman, & Richards, 1985; Koçak, 2008; Summers, Bergin, & Cole, 2009). A core feature of cooperative learning is the fostering of positive dependence among team members. As students have the opportunity to contribute to each others' progress in courses, they may benefit from both increased feelings of belongingness and decreased feelings of

burdensomeness, thus protecting them against developing suicidal thoughts and desires (Joiner et al., 2009). Findings from the current study suggest that enhancing the quality of students' campus and classroom relationships would not only bolster students against emotional distress and suicide, but also increase the likelihood that students who do become overwhelmed and suicidal will be able to identify potential confidants and avenues to receiving help.

Implications for a Peer-Response Training Program

The previous sections identified a variety of strategies to reduce the salience of specific motivations for concealing one's suicidal thoughts, thereby increasing rates of informal help seeking by students in distress. A hypothetical peer-response training program demonstrates how knowledge of students' self-reported reasons for concealment can collectively inform a specific intervention strategy. Peer-response training, rather than traditional gate-keeper training of Resident Advisors, staff, and faculty (e.g. Tompkins & Witt, 2009) was chosen because peers are already the primary source of support sought out by students who disclose suicidal thinking (Drum et al., 2009). Also, universal training that reaches every student is likely to more effectively reduce the salience of the reasons for concealment identified in this study.

Peers are essentially "on the front lines" when it comes to responding to other students' distress and suicidality (Sharkin, Plageman, & Mangold, 2003, p. 691). According to a survey conducted by The Jed Foundation and mtvU (2006), 69% of college students reported that they would seek help from friends compared to only 12%

who would consult a Resident Advisor. The same poll found that 24% of students in their senior year report that they have a friend who has considered suicide. However, students may not be prepared to respond to serious problems such as suicidality. For example, Sharkin et al. (2003) found that only 4% of students who reported helping a friend with serious emotional problems such as depression, stress, or suicidality consulted with the campus counseling center or a Resident Advisor. The authors proposed that first-year orientation could be used to prepare all students with training similar to that given to Resident Assistants for recognizing symptoms of distress and referring peers to specific campus resources. After all, the majority of students will help a peer in distress during their college years, regardless of whether or not they are prepared to do so (Sharkin et al., 2003).

Peer-response training is important not only to increase the likelihood that the suicidal student will receive appropriate help and referrals, but also to support the student who receives the disclosure. Learning of a friend's suicidal thoughts is likely to be emotionally distressing for the confidant, which is why it is imperative to provide students with the confidence of knowing what to do and how to help, as well as how to obtain advice and support for themselves. King et al. (2008) found that only 11% of college students believed they could recognize a friend at suicidal risk, and 17% believed they could ask a friend if he or she was suicidal. Students who had received suicide prevention education in high school were more confident than their peers about their abilities to recognize and intervene with a friend at risk, as well as to help the friend see a counselor.

It is beyond the scope of this dissertation to outline the components of a successful peer-response training initiative. Any such program must be carefully designed and evaluated both for benefits as well as for any risks involved. For example, research on suicide contagion suggests that suicide education should not include accounts or examples of completed suicide (for a review see Velting & Gould, 1997). Furr et al. (2001) suggest that prevention education should focus on warning signs, actions to take with a suicidal friend, and identification of campus resources. An example of this type of training is the "Be That One" suicide prevention program (University of Texas at Austin Counseling and Mental Health Center, 2009), which offers trainings for student groups that request them as well as for faculty and staff. While a very promising approach, what this program lacks is universal outreach that will impact every student.

In order to most effectively reduce the salience of students' reasons for concealing their suicidal thoughts, peer-response training should be implemented university-wide, which would have beneficial effects at multiple levels. First, provided that training is effective, peers who encounter a suicidal friend during their college years will feel more confident about approaching their friend, will respond more helpfully, and will be more likely to refer their friend to professional help. Secondly, by passing through the same training, students who will struggle with suicidal thoughts during their college years will be exposed to implicit as well as explicit messages about help seeking that could potentially reduce the salience of many of the reasons for concealment discussed in the present study.

For example, the content of the training should convey explicit messages that suicidal thoughts are both relatively common among college students (thus reducing the salience of Shame) and to be taken seriously when they occur (thus undermining the Low Risk reason for concealment.) Students would receive explicit information about available counseling services and the confidentiality of those services, thus reducing misperceptions that might contribute to Repercussions as a reason for concealment. Because many college students are unaware of the existence of such services on their campus, learning about the counseling center in the context of imagining helping a friend access services may also reduce the prevalence of Perceived Lack of Confidants as a reason for concealment.

The implicit messages communicated by universal peer-response training could potentially confer greater benefits than the explicit messages. Because they know that their classmates have undergone the same training, students would implicitly learn that their peers are well prepared to handle a disclosure of suicidal thinking. Students who develop suicidal thoughts may therefore be less likely to assume that their friends will be overly frightened or burdened by their disclosure, thus reducing the salience of Solicitude as a reason for concealment. Furthermore, the training could incorporate messages about help seeking as an altruistic act benefiting one's friends and family as a way to directly target Solicitude as a barrier to help seeking.

Knowing that peers have been trained could also convey an implicit message that a disclosure of suicidality is more likely to acknowledged and responded to helpfully by others, thus reducing the salience of Pointless as a reason for concealment. In particular,

educating students about the impact of their language and discouraging the casual use of suicide-related speech sends the message that students will be taken very seriously if they reference suicidal thoughts or desires. Also, knowing that their peers have also been educated about mental health issues may reduce the expectation of being met with Stigma. The training could further reinforce anti-Shame messages by incorporating some of the testimonials of popular singers and actors featured in the "Half of Us" campaign.

Finally, a broader goal of having every entering student experience this training together would be to emphasize that they are now members of an interdependent community and they are responsible for supporting and looking out for one another. It is possible that by emphasizing students' connectedness, especially if paired with policy changes aimed at reducing classroom competitiveness, students would experience more trust with each other and could even overcome more enduring orientations towards secrecy reflected in the Privacy reason for concealment. Furthermore, strengthening students' experience of belongingness and social connectedness is expected not only to increase help seeking by students in distress, but also to reduce the numbers of students who will reach suicidal levels of distress. This protective effect would be further strengthened by protections against perceived burdensomeness that could result from emphasizing students' role in caring for each other and contributing to improved collective mental health on their campus. Therefore, in addition to possibly reducing the salience of students' reasons for concealing their struggles with suicidal thinking, this type of universal training would meet recommendations that campus suicide prevention programming should be aimed at changing institutions rather than individuals, and should

be implemented continuously and at the population level (Drum et al., 2009; Silverman & Felner, 1995; SPRC, 2004).

Strengths, Limitations, and Future Directions

This study addresses many of the limitations of previous research by using self-report data from a national, non-clinical sample. As Broadhurst (2003) notes, an inherent problem in much of the literature on help avoidance is the use of clinical samples to explore barriers and pathways to help seeking. In order for studies to elicit lay understandings and behaviors related to help seeking by potential clients, researchers must use non-clinical samples, avoid pre-defined constructs, and acknowledge that there will be meaningful differences between professional and lay definitions of problems.

Additionally, this study provided insight into barriers not only to seeking help from professionals, but also to seeking support from informal contacts. Although two smaller studies (Freedenthal & Stiffman, 2007; Nada-Raja et al., 2003) have explored the motivations of suicidal or self-harming youth who avoided seeking help from their peers or family members, this is the first study to explore this phenomenon among college students. Reasons for concealment in the current study both included and expanded upon those found in the aforementioned studies. The large sample used in the current study, which includes students from 70 colleges and universities, provides confidence that the findings are comprehensive and generalizable to college student populations.

The present study explored individuals' subjective experiences of what it meant to them to have suicidal thoughts and the factors that motivated them to avoid seeking help

for those thoughts. It also responded to the call of suicidologists for greater integration of qualitative and quantitative methods (Goldney et al., 2002; Leenaars, 2002a, 2002b; Leenaars et al., 1997). Combining these methods allows the strengths of each to compensate for their respective weaknesses (Lester, 2002). Qualitative studies of non-clinical populations are both noticeably lacking in the literature and necessary to establish the voices of those who do not seek help for suicidal thoughts and behaviors (Gair & Camilleri, 2003; Michel et al., 2002; Michel et al., 1994; Skogman & Öjehagen, 2003). By allowing the students to speak for themselves, this exploration yielded unique and powerful insight into the motivations of those who did not tell anyone about their suicidal thoughts.

Nonetheless, several important limitations of the study should be noted. Although the demographics of the sample were similar to other large-scale surveys of four-year colleges (American College Health Association-National College Health Assessment, 2006), the sample likely overrepresented Caucasian students compared to ethnic minority students. Future research endeavors should attend to recruiting racial and ethnic minority students, perhaps through collaboration with schools that traditionally enroll higher numbers of underrepresented students.

Another study limitation is that these data are primarily retrospective. Beck & Weishaar (1990) note that self-reports collected after the suicidal crisis is over may be influenced by a more positive subsequent mood state. The validity of these findings depends upon the accuracy of participants' recollections of how they were thinking and feeling during a period in which they seriously considered suicidality. While 12% of the

respondents with suicide ideation were currently considering a suicide attempt at the time of taking the study, the majority of students were reporting on events that may have transpired as many as 12 months previously. Future research should attempt to incorporate prospective study designs following a cohort of individuals in order to identify factors that are truly predictive of concealing suicidal ideation and attempting suicide.

Finally, this study was exploratory in nature and was not based on established theory. The quantitative findings in particular should be considered tentatively. The purpose of these analyses was to examine potential relationships and not to include all important predictor variables. Furthermore, suicide attempts are low base-rate, complex phenomena with which a plethora of variables have been associated (for a review see Dieserud et al., 2003). Factors known to relate to suicide attempts, such as social isolation, hopelessness, self-efficacy, problem-solving style, perceived burdensomeness, and intent to kill oneself, were not assessed for and may influence and interact with students' self-reported reasons for concealing their suicide ideation and likelihood of attempting suicide. Drawing individual-level conclusions from aggregate data such as this would represent an "ecological fallacy" (McIntosh, 2002, p. 50). Instead, taken as a purely descriptive study, these findings should be considered collectively to inform policy through enhanced knowledge of the help seeking patterns and concealment motivations that are common among students with serious suicidal thinking.

The emerging theory of informal help avoidance by suicidal individuals should be refined and tested with diverse populations. Future research should test the reasons for

concealment categories derived through content analysis to ensure that they accurately and comprehensively capture students' motivations for avoiding formal or informal help. If students endorse the reasons for concealment when they are provided as a checklist in similar proportion to those found in the current study, it will provide additional validation of the study findings and will strengthen implications for program development.

Young adulthood is a time of particular risk for experiencing the onset of mental health problems (Kessler, Berglund, Demler, Jin, Merikangas, & Walters, 2005) and it has been noted that college students are increasingly experiencing overwhelming levels of stress, anxiety, and depression (Eisenberg, Gollust, Golberstein, & Hefner, 2007). Because over half of the nation's young adults attend at least some college (U.S. Department of Education, National Center for Education Statistics, 2009), developing interventions to bolster resilience among college students may have a pervasive impact on a societal level. Institutions of higher education are intentionally interventional communities, with the resources and mandate to enact true population-level interventions (Drum et al., 2009; Joffe, 2008; Whitaker, 1986). They therefore provide ideal settings in which to experiment with systematic efforts to increase connectedness and help seeking, reduce levels of psychological distress among the student body, and decrease the incidence of college student suicide.

Appendices

Appendix A: Study Information and Consent Form

Note: This information was customized with the contact information for each institution's counseling center, and was sent in an email originating from the campus counseling center and customized with the school's colors.

Informed Consent to Participate in Research

The University of Texas at Austin

You are being asked to participate in a research study. This document provides you with information about the study. Please read the information below. If you have any questions, please contact [NAME] at [NAME OF COUNSELING CENTER] at [director@campus.edu] or [XXX-XXXX] before deciding whether or not to take part. You can also contact the National Director of this research project, Chris Brownson, Ph.D., at 512-475-6939. Your participation is entirely voluntary and you can refuse to participate without penalty or loss of benefits to which you are otherwise entitled.

This survey is anonymous. Your actual survey responses are not linked to your name, and will never be associated with you or your personally identifiable information. If you consent to participate by clicking on the appropriate button at the bottom of this page, your survey will be assigned a random number to serve as the only identifier for our records. This random number will have no relation and no link to your name or any personally identifiable information about you. As a result, your responses cannot be linked to your identity, either during or after the survey itself.

Title of Research Study: Suicidal Thoughts and Behavior among Undergraduate and Graduate Students in the United States

Principal Investigators:

Chris Brownson, Ph.D., Counseling & Mental Health Center, The University of Texas at Austin, (512) 475-6939.

Shanna Smith, Ph.D., Research Consulting, The University of Texas at Austin, (512) 475-9425

Funding source:

Contributions from 110 participating colleges and universities.

What is the purpose of this study?

To determine the nature and extent of suicidal thoughts and behavior among undergraduate and graduate students across the country, and to explore better ways of providing support and assistance to these students.

What will be done if you take part in this research study?

You will be asked to answer a series of questions about yourself in this online survey. Depending on your responses, the survey may take between 5 and 20 minutes to complete. The survey is anonymous, and if there are any questions that you prefer not to answer, you may choose to skip them.

What are the possible discomforts and risks?

The survey may ask you to recall events that you are uncomfortable thinking about. If this happens, you may wish to take a break and come back to the survey at another time, or you may exit the survey permanently. You may also call [NAME OF COUNSELING CENTER] at [XXX-XXXX] to discuss any distressing or discomforting feelings. If you wish to discuss the information above or any other risks you may experience, you may contact the research study's local representative, [NAME], at [director@campus.edu] or [XXX-XXXX], or contact the Principal Investigator at cbrownson@mail.utexas.edu or 512-475-6939.

What are the possible benefits to you or to others?

Current research suggests that a surprisingly large number of undergraduate and graduate students contemplate suicide each year. Even if you have never had suicidal thoughts, chances are that some of your friends and classmates have had such thoughts. Campus counseling centers need help determining how many students are dealing with suicidal thoughts and understanding how to reach out to and assist students who may be considering suicide. By participating in this study, you can help increase the effectiveness of the counseling services available to students in suicidal crisis on your campus and around the country.

If you choose to take part in this study, will it cost you anything?

No.

Will you receive compensation for your participation in this study?

No. However, you will be entered in a national drawing if you agree to participate in the study. If you consent to participate, you will be eligible for a random drawing for one of 100 gift certificates to Amazon.com (value = $25 each) as well as 3 top prizes of $1,000, $750, and $500 gift certificates to Amazon.com. Although your responses to the survey are anonymous – that is, we will not know which responses belong to you – your consent to take the study will be recorded and will make you eligible for the drawing.

What if you are injured because of the study?

This study does not involve physical risk. If, however, you are injured during the course of this study, no provisions have been made to provide treatment, medical care, or payment for such injury.

If you do not want to take part in this study, what other options are available to you?

Participation in this study is entirely voluntary. You are free to refuse to be in the study, and your refusal will not influence current or future relationships with [Local Campus Name] or The University of Texas at Austin, which is where this research originates.

How can you withdraw from this research study and who should I call if I have questions, complaints, or concerns?

If you wish to stop your participation in this research study for any reason, you should click on the "Withdraw from Study" link provided at the bottom of each survey page. You are free to withdraw your consent and stop participation in this research study at any time without penalty or loss of benefits for which you may be entitled.

In addition, if you have complaints, concerns, or questions about this study, or your rights as a research participant, please contact The Office of Research Support and Compliance at The University of Texas at Austin, or Clarke A. Burnham, Ph.D., Chair of The University of Texas at Austin Institutional Review Board for the Protection of Human Subjects, (512) 471-8871 / (512) 232-4383 / orsc@uts.cc.utexas.edu.

How will your privacy and the confidentiality of your research records be protected?

As noted above, this study is anonymous. Your actual survey responses are not linked to your name, and will never be associated with you or your personally identifiable information. Your consent or refusal to participate in the study is the only information

that can be connected to you. Authorized persons from The University of Texas at Austin, its Institutional Review Board, and [Local Campus Name] have the legal right to review this information and will protect the confidentiality of those records to the extent permitted by law. Otherwise, this consent/refusal information will not be released without your consent unless required by law or a court order.

Will the researchers benefit from your participation in this study?

No.

_____

Signature of Principal Investigator **Date**

You have been informed about this study's purpose, procedures, possible benefits and risks, and you have received a copy of this Form. You are encouraged to print out a copy of this page for your records. You have been given the opportunity to ask questions before you consent, and you have been told that you can ask other questions at any time. You voluntarily agree to participate in this study. By clicking on the "I Consent to Participate" button below, you are not waiving any of your legal rights.

(I Consent to Participate) (I Decline to Participate)

Appendix B: Survey Codebook

Note: Survey items that are irrelevant to the current study have been removed.

The Nature of Suicidal Crises in College Students
Final Revision - June 2006

Survey Conventions

Question Numbering

Each distinct question is numbered sequentially in presentation order. Some questions invite responses on several points; these various points share the same question number, but have a sequential letter appended to differentiate them.

Survey Content

The text of each question as well as all potential responses are included in this codebook. Anything marked with quotes is taken verbatim from the survey.

Response Options

The response options for each question are indicated on the right side of the each row. In the case of questions with multiple data points, the response options presented apply to each point. In some cases, a question has the same response options as a previous question, and will refer back to it.

Missing Values

For the majority of questions, a missing value is indicated by a blank; this may be due to either the respondent skipping the question or a skip pattern. The one exception is multiple choice questions, in which a „0' indicates a particular option has not selected.

Skip Patterns

Simple skip patterns, in which the availability of one or two questions is dependent on another close question, are indicated by an expression in brackets; the majority of these represent opportunities to provide an explanation for an "other" response. Larger skip patterns, in which entire sections of questions are skipped, are indicated by separate rows labeled "Skip:", with explanations of the pattern.

Question Groups

The study contains several groups of questions, in which a series of questions all relate to and depend on a previous question. These groups are preceded by a separate row labeled "Group:" which explains their relation and the skip pattern controlling them. Further, the questions in each group share the same number, with sequential letters appended.

Required Questions

The respondent was only required to answer two or three questions that controlled the large skip patterns of the survey. These questions are marked in the code book with "(respondent is required to answer this question)".

Response

A fully anonymous number that uniquely identifies the response. (integer number; always present)

Affiliation

A unique number which identifies the school of the respondent. (integer number; always present)

School

The school attended by the respondent. (text; always present)

Class

A number indicating if this respondent was marked as being an undergraduate or graduate level student.

1 = undergraduate

2 = graduate

Questions

Q1 "Your age:"

(integer number; blank = no response)

R_Q1

This question was recoded for the crosstabs report only to represent age categories.

Outliers were defined as age < 16 years and > 81 years and were recoded as missing on this variable.

1 = "16-21 years"

2 = "22-25 years"

3 = "26-29 years"

4 = "30-39 years"

5 = "40+ years"

Q2 "Your gender:" blank = no response

1 = "Female"

2 = "Male"

(Q3) R_Q3

"With the understanding that these categories might be limiting, which ethnicity best describes you?" (Please check all that apply.)

Q3A: "African American/Black"

Q3B: "Alaska Native/American Indian"

Q3C: "Asian-American"

Q3D: "Caucasian/White"

Q3E: "Hispanic-American/Latino"

Q3F: "International/Foreign Student"

This question (Q3A-F) was recoded into one variable. Respondents who selected more than one ethnicity were recoded to "Multiracial". 0 = no response / no 1 = yes

1 = "African American/Black"

2 = "Alaska Native/American Indian"

3 = "Asian-American"

4 = "Caucasian/White"

5 = "Hispanic-American/Latino"

6 = "International/Foreign Student"

7 = "Multiracial"

…

R_Q17 "What is your sexual orientation?"

blank = no response

1 = "Bisexual"

2 = "Gay/Lesbian"

3 = "Heterosexual"

4 = "Questioning"

…

Q29 "During the past 12 months, have you seriously *considered* attempting suicide?"

(respondent is required to answer this question)

blank = no response or skipped

1 = “Yes”

2 = “No”

Skip: respondents who answered “no” to Q29 skip to the end.

…

Q38 “In times of suicidal crisis, people sometimes turn to others for support. After first recognizing that you were seriously *considering* attempting suicide, how many people did you tell about these thoughts?”

blank = no response or skipped

1 = “One”

2 = “Two”

3 = “Three or more”

4 = “I did not tell anyone”

…

Q42 “Why did you decide not to tell anyone about your thoughts?”

[Q38 = 4]

(text; blank = no response or skipped)

…

Q62 “Have you *attempted* suicide with the past 12 months?”

(respondent is required to answer this question)

blank = no response or skipped

1 = “Yes”

2 = “No”

Appendix C: Materials for Initial Coding

Example Coding Sheet

Multiple Theme	Response	First Category	Second Category	Third Category
	I didn't think I was serious enough in my thoughts to actually attempt suicide.	Low Acuity		
2	*Because I thought it was pointless* **and that I was just being a drama queen because something bad happened in my life.**	Pointless	Low Acuity	
	Because I felt that no one around me would understand what exactly goes on inside my head. My parents would just send me to a doctor to give me some medicine to make me better. I just didn't feel that anyone around could help me.	Pointless		
	because I thought that i was just stressed out and everything would eventually go away	Low Acuity		
	I keep to myself about private matters.	Privacy		
2	*I didn't want people to worry* or overreact. **I also felt they would treat me differently if they knew, as if I were defective or volatile. The probably would have had a negative stigma associated with people who have such feelings.**	Burdensome	Stigma	
2	*Dont want others burdened with own problems* **my fault, or at least my responsibility**	Burdensome	Privacy	
	wasn't worth their worry	Burdensome		
	I could not trust them to keep it to themselves.	Isolation		
2	*my thoughts are for myself.* **if you tell others, they only worry** and things get more complicated.	Privacy	Burdensome	
	pride	Privacy		
	I have had these thoughts before and I don't want anyone to know what i am going through. I would like best to just be left alone and for no one to know if anything were to ever happen to me.	Privacy		
2	*cause i didnt want anyone to talk me out of doing it* or **reporting me or something. i dont want to go back to the psych ward**	Interference	Ramifications	
	The feeling went away.	Low Acuity		
	the reasons behind it was extremely personal.	Privacy		
3	*I didn't want anyone to stop me and should I change my mind, I didn't want to be put on suicide watch because afterwards I dwell on how I could finally do it but don't consider doing it for a while.* **In other words, I feel better eventually** so <u>I don't want to worry anyone.</u>	Interference	Low Acuity	Burdensome

Instructions for the First Phase of Creating the Coding Schema

1. Read through each response (second column.) If you think the response contains only one thematic reason for concealing suicide ideation, leave the first column blank
2. Write the best fitting descriptor for the theme in the third column.
3. If you think the response contains more than one thematic reason, write the number of distinct themes you see in the first column.
    a. If there is more than one theme, *italicize the elements of the response that show the first theme*, **bold the elements of the response that show the second theme**, and <u>underline the elements that show the third theme</u>. This is for the purpose of identifying separate thematic units. If any responses have more than three themes, we will discuss procedures in our next meeting.
    b. Write the best descriptor for the first theme in the third column, the second theme in the fourth column, and so on.

4. As you progress through the data, refine and condense the labels you are applying to the themes. We are aiming for approximately 10 or so (obviously it depends on the data) but that gives a ballpark sense of how specific to make the categories.
5. I have supplied you with the first 30% of the data (180 randomly selected responses.) Please code this portion independently. Prepare a list with your "final" code categories and a brief description of each to bring to our next meeting.

Appendix D: Coding Schema

Reasons for Concealment Coding Schema

Orientation to the Dataset

This manual is intended to orient you to the procedures for thematically categorizing participants' written responses to the following question: "Why did you decide not to tell anyone about your [suicidal] thoughts?"

This data was collected as part of an anonymous online survey about suicidal thoughts and behaviors, and is being analyzed as part of the dissertation research of Adryon Burton Denmark. The purpose of this research is to understand what factors motivate individuals who have experienced a suicidal crisis to conceal their suicidal ideation from others.

All data has been de-identified; however, you must still treat this as confidential information. Do not discuss this data with any individual apart from those involved in this research project. You will be provided with an excel spreadsheet with which to record your codes. After you have completed coding and the primary investigator has confirmed receipt of the completed spreadsheet, please remove the spreadsheet and any copies from your computer.

Coding Steps

1. Use this manual to familiarize yourself with the Reasons for Concealment codes.
2. Participate in a one-hour meeting during which the coding schema will be explained verbally and you will have the opportunity to ask for clarification about any of the codes or aspects of the decision rubric. During this meeting you will practice on a subset of responses, discuss your internal process, and receive feedback about the accuracy of your codes.
3. You will work independently when doing the actual coding. Read each response as a whole and note your first impression as to the thematic reason or reasons contained in the response. Then review the code descriptions for the theme or themes that you are considering in order to verify the "fit." If your first impression was not accurate you should replace it with the appropriate code(s).
4. You will be asked to first code 55 responses and then submit these codes for a formative reliability check. If the reliability is calculated at $k \leq .70$, you will receive further training and will be asked to re-code that portion of the dataset.

5. After formative reliability has been successfully demonstrated, you will be asked to code the remaining 200 responses. Once you are finished, alert the primary investigator and turn in your coding sheets.

Coding for Multiple Themes

Many responses contain more than one thematic unit. These responses have been parsed into multiple units through consensus of the three-person team that developed this coding schema. Responses with more than one thematic unit will appear as follows:

Sections that express the first distinct theme to appear are italicized. **Those pertaining to the second distinct theme are in bold font,** while sections pertaining to the third distinct theme will be underlined. *Sections expressing the fourth theme are italicized and underlined*, **and those expressing the fifth theme are bold and underlined.** No responses have more than 5 distinct thematic units.

Sections of text that are unformatted are considered extraneous information, and while they contribute to the contextual understanding of the entire response, they do not contain a code-able response to the question "why did you decide not to tell anyone about your [suicidal] thoughts?"

Responses may include repetitions of a theme, which will be formatted in the same way as the first appearance of that theme and are not coded separately. Therefore phrases that repeat the first theme mentioned will be italicized while phrases pertaining to the second theme will be bolded, and so forth. Responses that contain only one thematic unit are not formatted. They may contain extraneous information as well as a single thematic response.

Further Instructions

When coding, try to balance attention to details of the literal text with an ability to infer implied meaning. Inferences will at times be necessary due to vague or idiosyncratic use of language, such as pronouns with no clearly identified subject or grammatical errors and misspellings. However, at all times strive to make as few inferences and remain as close to the literal text as possible.

It is important to pace yourself carefully in order to ensure accuracy and avoid drifting in your application of the coding schema. It is best to take frequent breaks and code no more than 50 responses in a single session in order to ensure that each response receives close and careful reading and sufficient consideration. You should keep a printed copy of this coding schema and refer constantly to the code descriptions throughout the coding process, even at later stages when you feel familiar with the codes.

Avoid making hasty decisions based on specific word choice. For example, a response that contains the word "pointless" should not necessarily be coded as Pointless. Read each response multiple times in order to accurately identify the meaning of the response rather that cuing solely to the explicit language.

Code Categories

1. Interference
2. Low Risk
3. Perceived Lack of Confidants
4. Pointless
5. Privacy
6. Repercussions
7. Shame
8. Solicitude
9. Stigma
10. Other

Code Descriptions, Examples, and Decision-making Guidelines

1. Interference

This code captures the respondent's lack of desire to receive help or be prevented from attempting suicide. Responses in this category may reflect either a resolved decision to attempt suicide or a desire to keep one's options open regarding suicidal behavior. Responses in this category indicate concern that telling someone about the suicidal thoughts might prompt that person to either physically prevent the suicide attempt or otherwise interfere with the respondent's autonomy. Anticipated interference can include attempts by others to make the respondent change his or her mind regarding suicidal plans or behaviors. This category also includes other rejections of potential help such as statements about not wanting or not needing help, and statements implying that the person is likely to follow through on a suicide attempt.

This code should only be applied if it is explicit that the respondent is avoiding help out of the desire to preserve his or her autonomy regarding a suicidal act.

- Responses that reflect a lack of need for help in the context of low acuity of suicidal thoughts or perceived low likelihood of attempting suicide should NOT be coded as Interference; these should be coded as Low Risk.

- Responses that reflect concern about other possible consequence such as being hospitalized or forced to seek help should NOT be coded as Interference if there is no direct reference to having one's suicidal actions prevented; these should be coded as Repercussions.

- Responses indicating a desire to mask the suicide as an accidental death should NOT be coded as Interference if the response includes wanting to protect others from being hurt by the suicide; these should be coded as Solicitude.

Examples of Interference:

- "I knew that if I got to the place where I would follow through with my plan, I wanted to succeed."

- "I didn't want anyone to talk me out of doing it."

- "Telling someone is a cry for help. If I'm going to commit suicide it is not a cry for help, it is killing myself. There is no need to tell someone so that I can have someone try to offer some sort of help I'm not seeking."

2. Low Risk

This code captures responses that indicate the respondent believes he or she is unlikely to follow through on the suicidal thoughts. This category includes responses suggesting that either the thoughts were transient or are expected to pass, or that the thoughts are not very serious or strong. This belief could be expressed as the respondent's perception the suicidal thoughts were an overreaction or an overdramatic response. This category also includes responses that indicate that, regardless of the severity or persistence of the suicidal ideation, the respondent believes that he or she will not attempt suicide.

This code should only be applied if it is clear that the respondent perceives him or herself to be at low risk for attempting suicide.

- Responses that suggest that other people might not think the suicidal ideation is very serious or important should NOT be coded as Low Risk; these should be coded as Pointless.

- Responses that reference religious or moral prohibitions against suicide should NOT be coded as Low Risk if the prohibitions pertain only to how others might respond to the disclosure of suicidal thinking; these should be coded as Stigma.

Examples of Low Risk:

- "I hoped that they would just go away on their own as they have in the past."
- "The chances of me going through with it wasn't extremely likely… even though I wanted to."
- "I know I would never commit suicide. It is inherently and morally ingrained in me that there's more to live for. Life was just tough, and that was a passing thought in wondering how to make life easier. Of course, by committing suicide, life would end, and that would rather defeat the purpose."

3. Perceived Lack of Confidants

This code captures the respondent's perception that there was no one with whom he or she could talk about the suicidal thoughts. Although other people may be present in the respondent's life, he or she is unable to identify any trustworthy, acceptable, or available confidant. The response may imply either that the respondent does not have anyone to tell (ie, true social isolation) or that there is no one the respondent believes he or she can trust or would like to tell. It may be inferred that if an acceptable confidant had been available, the respondent might have told.

This code should only be applied if the response indicates an inability to identify someone to whom the respondent feels he or she could talk if desired.

- Responses that identify potential confidants but reject them out of the belief that they wouldn't care or couldn't help should NOT be coded as Perceived Lack of Confidants; these should be coded as Pointless.
- Responses that indicate that the respondent intentionally and habitually avoids sharing his or her problems with others should NOT be coded as Perceived Lack of Confidants; these should be coded as Privacy.

Examples of Perceived Lack of Confidants:

- "There wasn't anyone I felt I could turn to."
- "There wasn't anyone around I could talk to that knew me well enough."

- "I'm 1500 miles away from everyone that cares about me, in the middle of nowhere with no one I trust. I would have talked about it if I thought anyone could help me through this, but there isn't anyone here that can."

4. Pointless

This code captures the respondent's belief that disclosing his or her suicidal thoughts to others would not be helpful and might result in feeling worse. Responses in this category include themes such as the belief that others would not be able to help, that others would not care or listen, that the respondent is undeserving of help, or that others would not understand or believe the disclosure of suicidal thinking. This includes the concern that others would downplay the disclosure and perceive it as melodramatic or as a bid for attention, rather than taking it seriously.

This category also includes responses suggesting the respondent's decision to conceal his or her suicidal thoughts is influenced by a prior, unsuccessful attempt at communication. The respondent may have directly mentioned or tried to hint at his or her suicidal thoughts, and based off the lack of helpfulness or failure of others to respond, he or she believes that further communication about suicidal thoughts would be useless. This also includes the respondent's perception that other people should have noticed his or her distress, and because they failed to notice, they are not worth telling.

This code should only be applied to responses that focus on the lack of help or understanding that the respondent anticipates if he or she were to confide in others.

- Responses that focus on concern for what other people would think about the respondent or ways in which others might react negatively to the disclosure should NOT be coded as Pointless; depending on the context these may be coded as Stigma or as Solicitude.

- Responses that indicate that the respondent does not want to be helped or stopped should NOT be coded as Pointless; these should be coded as Interference.

- Responses that express fear of potential practical or social consequences as a result of disclosure should NOT be coded as Pointless; depending on the context these may be coded as Repercussions or as Stigma.

Examples of Pointless:

- "Didn't think anyone would care, or that they wouldn't take me seriously."

- "People these days think you are trying to get attention and are being overdramatic if you tell them."

- "Because I know exactly what they're going to say... I've heard the rhetoric before."

5. Privacy

This code captures the respondent's sense of him or herself as a fundamentally private person who takes care of his or her own problems. Responses in this category indicate that it is in the respondent's nature to keep a boundary around his or her private concerns and not readily admit others to his or her confidence. This includes statements about not wanting others to know about the suicidal thinking and not wanting attention or sympathy from others. This category includes the respondent's belief that he or she could not tolerate talking about the suicidal thoughts because it would have been too awkward, difficult, or uncomfortable. This category also includes indications that the respondent generally copes with difficult things by turning inward rather than outward, which may be expressed as a sense of pride or self-sufficiency.

This code should only be applied to responses that indicate that it is the respondent's choice or desire to maintain a boundary of privacy around him or herself.

- Responses that indicate that the respondent does not have any available or acceptable confidant should NOT be coded as Privacy; these should be coded as Perceived Lack of Confidants.
- Responses that reflect concern for the discomfort others might feel rather than the discomfort the respondent imagines he or she would feel should NOT be coded as Privacy; depending on the context these may be coded as Solicitude or as Stigma.

Examples of Privacy:

- "It's my problem, not anybody else's. I did not see any need to drag other people into it."
- "Because it's something I don't feel comfortable sharing with others."
- "It was a personal issue and I prefer to deal with personal things as privately as possible."

6. Repercussions

This code captures the respondent's concern about the practical consequences that might result from disclosing suicidal ideation. The response may either reference specific negative consequences or express fear that disclosing the suicidal thoughts would result in the general loss of privileges, freedoms, future opportunities, or personal autonomy.

This includes tangible consequences such as being forced into treatment, involuntarily hospitalized, losing a job, or losing custody of children. This category also includes the anticipation of intangible losses such as the loss of one's privacy or confidentiality or the loss of specific relationships such as a marriage or friendships.

This code should only be applied to responses that clearly express fears about negative consequences that the respondent believes would result from disclosing his or her suicidal thoughts.

- Responses that mention the possibility of losing confidentiality or being placed on suicide watch should ONLY be coded as Repercussions if it is clear that the respondent is concealing his or her suicidal thoughts in order to avoid those outcomes.

- Responses that focus on how others might think about or treat the respondent differently, or that fear the loss of the good opinion or confidence of others, should NOT be coded as Repercussions; these should be coded as Stigma.

- Responses that focus on how the disclosure might impact the feelings of others NOT be coded as Repercussions; these should be coded as Solicitude

Examples of Repercussions:

- "Because they would make me go to the doctor or tell on me."

- "I was afraid of the consequences that maybe I would be pulled out of school or placed in the hospital."

- "A history of Psychological problems could look bad when looking for a job or on other things in the future."

7. Shame

This code captures the respondent's negative evaluation of his or her own experience of having suicidal thoughts. This includes feelings of shame, embarrassment, or guilt that result from the respondent's internal beliefs about suicide or negative reactions to his or her own thoughts and desires. This category includes statements that are presented as factual, such as that suicidal thoughts are a weakness, even though they do not clearly state that it is the respondent's opinion. The focus of this theme is on the respondent's internal feelings and beliefs rather than on external factors.

This code should only be applied to responses that reflect an internal evaluation of the respondent's thoughts or desires as shameful or bad.

- Responses that focus on concern of how others will react or that reflect the belief that other people would think the suicidal thoughts are shameful or bad should NOT be coded as Shame; these should be coded as Stigma.

Examples of Shame:

- "I was ashamed to admit that I had these thoughts."
- "Potential for embarrassment."
- "I felt guilty because maybe my life isn't so bad as I think it is sometimes."

8. Solicitude

This code captures the respondent's empathic concern that disclosure of his or her suicidal thoughts could potentially have an adverse impact on the emotional well-being of others. This includes a range of anticipated negative emotions elicited in others such as being scared, alarmed, upset, or worried. Concern that disclosure would burden others or that other people already have enough of their own problems without the addition of the respondent's problems fall under this category. It also includes concerns about how other people might feel if they had known about the suicidal thoughts and the respondent still died by suicide. The focus of this theme is its impact on others.

In order to apply this code the response must contain an element of concern for the well-being of others.

- Responses that express worry about what other people will think or how they might behave towards the respondent, but do NOT imply concern for the emotional well-being of those people, should NOT be coded as Solicitude; these should be coded as Stigma.
- The desire to construe the potential suicide as an accident is only coded as Solicitude if it is clear that the reason for doing so is to protect others from guilt or other negative emotions they might feel if they had known.

Examples of Solicitude:

- "I didn't want to bother anyone with my problems"
- "I didn't want to alarm people unnecessarily."
- "If I really acted upon my thoughts, I would try to make it look like an accident. This would be easier on everybody left behind."

9. Stigma

This code captures the respondent's concern about how other people might react to the disclosure or what others would think of him or her afterwards. This includes the idea that others might fear, blame, criticize, or otherwise make negative judgments about the respondent or treat him or her differently. The response may refer directly to the stigma attached to suicide and mental health issues, or it may refer indirectly to others' negative attitudes by mentioning the respondent's desire to maintain a positive public image or appear strong. Responses in this category may subtly communicate the focus on others' perceptions, such as referring to suicidal thoughts as being a sign of weakness or affecting one's appearance. The focus of this theme is on the anticipated negative opinions or reactions of other people.

This code should only be applied to responses that reflect an external focus on either how society at large negatively evaluates suicidal thinking or the fear that potential confidantes would react negatively.

- Responses that reflect concern about how the disclosure will affect others' emotional well-being should NOT be coded as Stigma; these should be coded as Solicitude.

- Responses that do not directly reference the thoughts or attitudes of others, but indicate that the respondent thinks the suicidal thoughts are bad or shameful, should NOT be coded as Stigma; these should be coded as Shame.

Examples of Stigma:

- "Because I did not want anyone to think any differently of me. I wanted to be the same happy go lucky girl in their eyes that I have always been."

- "Didn't want to appear weak, out of control, crazy."

- "I didn't feel like being criticized for being selfish or stupid. I was pretty sure if I told anyone, they would belittle me for considering this as an option, and tell me they expected better of me."

10. Other

This code captures responses that cannot be interpreted due to incomplete responses or exceedingly unclear language. This category also includes responses that fail to answer the original question: "why did you decided not to tell anyone about your thoughts?" Such responses might indicate that the respondent did in fact tell other people or intends to tell others, that the respondent does not know why he or she did not tell, or that the

respondent does not want to answer the question. This category includes responses that are so vague that interpretation would require a high level of inference and would therefore risk distorting the respondent's intended meaning.

This code should only be applied to responses that cannot possibly fit in any other category. Responses for which any part can be classified under a different category should NOT be coded as Other.

Examples of Other:

- "I haven't had a chance, yet. But I intend to tell my husband, my friend who's like a mom, my cousin and possibly my therapist." (*response does not fit any category*)
- "because i thought no one ca" (*incomplete response)*
- "I did not want to become a spectrum." (*unclear language)*

Appendix E: HLM Results Tables

Research Question 1

Student demographics and likelihood of concealing suicidal thoughts

The outcome variable is CONCEAL (Unit-specific model)					
Fixed Effect	*Coefficient*	*SE*	*p-value*	*Odds Ratio*	*(OR Inverted)*
For Category 0					
For INTRCPT1, B0					
INTRCPT2, G00	-0.205	-0.136	0.135	0.814	(1.229)
For UNDERGRD slope, B1(0)					
INTRCPT2, G10(0)	0.056	0.125	0.656	1.057	
For FEMALE slope, B2(0)					
INTERCPT2, G20(0)	0.491	0.123	0.000**	1.634**	
For AFAMER slope, B3(0)					
INTERCPT2, G30(0)	0.071	0.292	0.809	1.073	
For ALASK/IND slope, B4(0)					
INTERCPT2, G40(0)	-0.373	0.647	0.564	0.689	(1.451)
For ASIANAMER slope, B5(0)					
INTERCPT2, G50(0)	-0.290	0.260	0.265	0.748	(1.337)
For LATINO/A slope, B6(0)					
INTERCPT2, G60(0)	0.142	0.277	0.608	1.152	
For MULTI slope, B7(0)					
INTERCPT2, G70(0)	-0.327	0.262	0.213	0.721	(1.387)
For INTERNAT slope, B8(0)					
INTERCPT2, G80(0)	0.590	0.321	0.066	1.803	
For GAY/LESB slope, B9(0)					
INTERCPT2, G90(0)	-0.032	0.295	0.915	0.969	(1.032)
For BISEXUAL slope, B10(0)					
INTERCPT2, G100(0)	0.468	0.239	0.050*	1.596*	
For QUESTION slope, B11(0)					
INTERCPT2, G110(0)	-0.998	0.374	0.008*	0.368*	(2.717)*

*$p \leq .05$ **$p \leq .001$

Research Question 2

Concealing suicidal thoughts and likelihood of attempting suicide.

The outcome variable is ATTEMPT (Unit-specific model)

Fixed Effect	*Coefficient*	*SE*	*p-value*	*Odds Ratio*	*(OR Inverted)*
For Category 0					
For INTRCPT1, B0					
INTRCPT2, G00	2.435	0.236	0.000**	11.415**	
For UNDERGRD slope, B1(0)					
INTRCPT2, G10(0)	-0.608	0.246	0.016*	0.545*	(1.835)*
For CONCEAL slope, B2(0)					
INTERCPT2, G20(0)	0.356	0.206	0.087	1.428	
For AFAMER slope, B3(0)					
INTERCPT2, G30(0)	-1.018	0.368	0.008*	0.361*	(2.770)*
For ASIANAMER slope, B4(0)					
INTERCPT2, G40(0)	-0.848	0.348	0.018*	0.428*	(2.336)*
For LATINO/A slope, B5(0)					
INTERCPT2, G50(0)	-0.935	0.359	0.012*	0.393	(2.545)*
For INTERNAT slope, B6(0)					
INTERCPT2, G60(0)	-0.288	0.516	0.578	0.750	(1.333)
For BISEXUAL slope, B70(0)					
INTERCPT2, G70(0)	-0.290	0.408	0.480	0.748	(1.337)

Random Effect	*Variance Component*	*chi-square*	*p-value*
INTRCPT1, U0(0)	0.576	5.108	0.076
UNDERGRD, U1(0)	0.794	4.110	0.126
CONCEAL, U2(0)	0.663	1.671	>.500
AFAMER, U3(0)	0.418	0.434	>.500
ASIANAMER, U4(0)	0.406	1.103	>.500
LATINO/A, U5(0)	0.551	2.185	0.336
INTERNAT, U6(0)	1.057	0.287	>.500
BISEXUAL, U7(0)	2.303	2.649	0.265

*$p \leq .05$ **$p \leq .001$

Note: The chi-square statistics reported above are based on only 3 of 70 units that had sufficient data for computation. Fixed effects and variance components are based on all the data.

Research Question 4.1

Demographic characteristics and likelihood of endorsing Low Risk.

The outcome variable is LOW RISK *Fixed Effect*	*Coefficient*	*SE*	*p-value*	*Odds Ratio*	*(OR Inverted)*
For Category 0					
For INTRCPT1, B0					
INTRCPT2, G00	1.052	0.106	0.000**	2.864	
For MULTI slope, B1(0)					
INTRCPT2, G10(0)	1.092	0.645	0.094	2.981	
For GAY/LESB slope, B2(0)					
INTERCPT2, G20(0)	-0.697	0.486	0.156	0.498	(2.008)
For BISEXUAL slope, B3(0)					
INTERCPT2, G30(0)	1.086	0.688	0.119	2.961	

Random Effect	*Variance Component*	*chi-square*	*p-value*
INTRCPT1, U0(0)	0.019	5.108	>.500
MULTI, U1(0)	0.641	4.110	>.500
GAY/LESB, U2(0)	0.487	1.671	>.500
BISEXUAL, U3(0)	1.289	0.434	>.500

*$p \leq .05$ **$p \leq .001$

Note: The chi-square statistics reported above are based on only 1 of 70 units that had sufficient data for computation. Fixed effects and variance components are based on all the data.

Research Question 4.2

Demographic characteristics and likelihood of endorsing Solicitude.

The outcome variable is SOLICITUDE					
Fixed Effect	*Coefficient*	*SE*	*p-value*	*Odds Ratio*	*(OR Inverted)*
For Category 0					
For INTRCPT1, B0					
INTRCPT2, G00	1.609	0.183	0.000**	5.000**	
For FEMALE slope, B1(0)					
INTRCPT2, G10(0)	-0.542	0.221	0.017*	0.581*	(1.721)*

Random Effect	*Variance Component*	*chi-square*	*p-value*
INTRCPT1, U0(0)	0.000	51.101	>.500
FEMALE, U1(0)	0.001	51.015	>.500

*$p \leq .05$ **$p \leq .001$

Note: The chi-square statistics reported above are based on only 61 of 69 units that had sufficient data for computation. Fixed effects and variance components are based on all the data.

Research Question 4.3

Demographic characteristics and likelihood of endorsing Privacy.

The outcome variable is PRIVACY *Fixed Effect*	*Coefficient*	*SE*	*p-value*	*Odds Ratio*	*(OR Inverted)*
For Category 0					
For INTRCPT1, B0					
INTRCPT2, G00	1.038	0.158	0.000**	2.824	
For FEMALE slope, B1(0)					
INTRCPT2, G10(0)	0.662	0.216	0.004*	1.938*	
For LATINO/A slope, B2(0)					
INTERCPT2, G20(0)	-1.169	0.489	0.020*	0.311*	(3.215)*
For MULTI slope, B3(0)					
INTERCPT2, G30(0)	-0.776	0.456	0.093	0.460	(2.174)

Random Effect	*Variance Component*	*chi-square*	*p-value*
INTRCPT1, U0(0)	0.026	2.172	>.500
FEMALE, U1(0)	0.045	1.287	>.500
LATINO/A, U2(0)	0.026	4.496	>.500
MULTI, U3(0)	0.674	2.098	>.500

*$p \leq .05$ **$p \leq .001$

Note: The chi-square statistics reported above are based on only 6 of 69 units that had sufficient data for computation. Fixed effects and variance components are based on all the data.

Research Question 4.4

Demographic characteristics and likelihood of endorsing Pointless.

The outcome variable is POINTLESS

Fixed Effect	*Coefficient*	*SE*	*p-value*	*Odds Ratio*	*(OR Inverted)*
For Category 0					
For INTRCPT1, B0					
INTRCPT2, G00	2.001	0.215	0.000**	7.398**	
For FEMALE slope, B1(0)					
INTRCPT2, G10(0)	-0.525	0.261	0.047*	0.591*	(1.692)*
For ASIANAMER slope, B2(0)					
INTERCPT2, G20(0)	-0.961	0.418	0.025*	0.383*	(2.611)*
For MULTI slope, B3(0)					
INTERCPT2, G30(0)	-0.901	0.438	0.047*	0.406*	(2.463)*
For GAY/LESB slope, B4(0)					
INTERCPT2, G40(0)	1.314	1.041	0.207	3.723	
For BISEXUAL slope, B5(0)					
INTERCPT2, G50(0)	1.036	0.487	0.037*	0.355*	(2.817)*

Random Effect	*Variance Component*	*chi-square*	*p-value*
INTRCPT1, U0(0)	0.014	2.226	0.329
FEMALE, U1(0)	0.352	2.808	0.244
ASIANAMER, U2(0)	0.055	2.601	0.271
MULTI, U3(0)	0.027	0.513	>.500
BISEXUAL, U5(0)	0.721	1.872	>.500

*$p \leq .05$ **$p \leq .001$

Note: The chi-square statistics reported above are based on only 3 of 69 units that had sufficient data for computation. Fixed effects and variance components are based on all the data.

Research Question 4.5

Demographic characteristics and likelihood of endorsing Stigma.

The outcome variable is STIGMA

Fixed Effect	*Coefficient*	*SE*	*p-value*	*Odds Ratio*	*(OR Inverted)*
For Category 0					
For INTRCPT1, B0					
INTRCPT2, G00	1.909	0.234	0.000**	6.746**	
For FEMALE slope, B1(0)					
INTRCPT2, G10(0)	-0.562	0.262	0.036*	0.570*	(1.754)*
For MULTI slope, B2(0)					
INTERCPT2, G20(0)	-0.700	0.426	0.104	0.496*	(2.016)

Random Effect	*Variance Component*	*chi-square*	*p-value*
INTRCPT1, U0(0)	0.636	9.668	>.500
FEMALE, U1(0)	0.474	9.865	>.500
MULTI, U2(0)	0.102	10.694	>.500

*$p \leq .05$ **$p \leq .001$

Note: The chi-square statistics reported above are based on only 17 of 69 units that had sufficient data for computation. Fixed effects and variance components are based on all the data.

Research Question 4.6

Demographic characteristics and likelihood of endorsing Shame.

The outcome variable is SHAME *Fixed Effect*	*Coefficient*	*SE*	*p-value*	*Odds Ratio*	*(OR Inverted)*
For Category 0					
For INTRCPT1, B0					
INTRCPT2, G00	2.535	0.262	0.000**	12.620**	
For FEMALE slope, B1(0)					
INTRCPT2, G10(0)	-0.517	0.312	0.102	0.597	(1.675)

Random Effect	*Variance Component*	*chi-square*	*p-value*
INTRCPT1, U0(0)	0.061	47.282	>.500
FEMALE, U1(0)	0.036	45.677	>.500

*$p \leq .05$ **$p \leq .001$

Note: The chi-square statistics reported above are based on only 61 of 69 units that had sufficient data for computation. Fixed effects and variance components are based on all the data.

Research Question 4.7

Demographic characteristics and likelihood of endorsing Interference.

The outcome variable is INTERFERENCE

Fixed Effect	*Coefficient*	*SE*	*p-value*	*Odds Ratio*	*(OR Inverted)*
For Category 0					
For INTRCPT1, B0					
INTRCPT2, G00	2.170	0.257	0.000**	8.757**	
For FEMALE slope, B1(0)					
INTRCPT2, G10(0)	0.354	0.343	0.306	1.425	

Random Effect	*Variance Component*	*chi-square*	*p-value*
INTRCPT1, U0(0)	0.772	63.006	0.370
FEMALE, U1(0)	1.309	55.052	>.500

*$p \leq .05$ **$p \leq .001$

Note: The chi-square statistics reported above are based on only 61 of 69 units that had sufficient data for computation. Fixed effects and variance components are based on all the data.

Research Question 5

Reasons for concealment and likelihood of attempting suicide.

The outcome variable is ATTEMPT (Unit-specific model)

Fixed Effect	*Coefficient*	*SE*	*p-value*	*Odds Ratio*	*(OR Inverted)*
For Category 0					
For INTRCPT1, B0					
INTRCPT2, G00	2.946	0.399	0.000**	19.025**	
For UNDERGRD slope, B1(0)					
INTRCPT2, G10(0)	-1.266	0.421	0.004*	0.282*	(3.546)*
For AFAMER slope, B2(0)					
INTERCPT2, G20(0)	-0.148	0.876	0.867	0.862	(1.160)
For ASIANAMER slope, B3(0)					
INTERCPT2, G30(0)	0.412	0.695	0.554	1.510	
For LATINO/A slope, B4(0)					
INTERCPT2, G40(0)	-0.533	0.752	0.481	0.587	(1.704)
For LOW RISK slope, B5(0)					
INTERCPT2, G50(0)	2.639	0.776	0.001**	14.004**	
For POINTLESS slope, B6(0)					
INTERCPT2, G60(0)	-0.236	0.401	0.558	0.790	(1.266)
For INTERFERENCE slope, B70(0)					
INTERCPT2, G70(0)	-0.463	0.466	0.324	0.629	(1.590)

Random Effect	*Variance Component*	*chi-square*	*p-value*
INTRCPT1, U0(0)	0.138	5.063	0.023*
UNDERGRD, U1(0)	0.566	2.967	0.081
AFAMER, U2(0)	2.872	0.005	>.500
ASIANAMER, U3(0)	1.081	2.393	0.118
LATINO/A, U4(0)	0.208	3.109	0.074
LOW RISK, U5(0)	1.395	0.230	>.500
POINTLESS, U6(0)	1.724	0.147	>.500
INTERFERENCE, U7(0)	0.553	3.398	0.062

*$p \leq .05$ **$p \leq .001$

Note: The chi-square statistics reported above are based on only 2 of 70 units that had sufficient data for computation. Fixed effects and variance components are based on all the data.

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Vita

Adryon Lindy Burton Denmark, formerly Adryon Lindy Burton, attended Rowland Hall – St. Mark's High School in Salt Lake City, Utah. In the fall of 2000 she entered Stanford University in Palo Alto, California. She received the degree of Bachelor of Arts in Psychology from Stanford University in May of 2004. During the following year she was employed by NOVA Corporation as an English language teacher in Tokyo, Japan. In September of 2005 she entered the Counseling Psychology program in the Department of Educational Psychology at the University of Texas at Austin. She received her masters in Counseling Psychology in May of 2009. She completed the defense of this dissertation in April of 2010. She will complete her predoctoral internship in Psychology at Texas State University and will receive her doctorate in Counseling Psychology in August of 2011.

Permanent Address: 2509 Campfield Parkway
Austin, Texas 78745

This manuscript was typed by the author.